

Valenrod
101829418

10/829418

FILE 'REGISTRY' ENTERED AT 14:54:26 ON 10 JUL 2006
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STRUCTURE FILE UPDATES: 9 JUL 2006 HIGHEST RN 891170-23-3
DICTIONARY FILE UPDATES: 9 JUL 2006 HIGHEST RN 891170-23-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

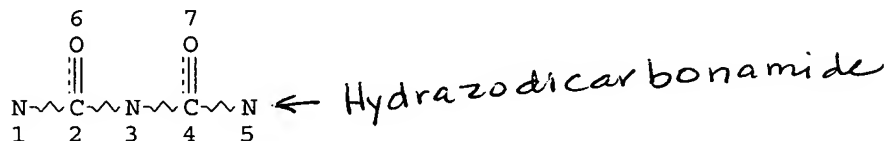
TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

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REGISTRY includes numerically searchable data for experimental and
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experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

L1 STR



NODE ATTRIBUTES:

CONNECT IS E1 RC AT 1
CONNECT IS X3 RC AT 3
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

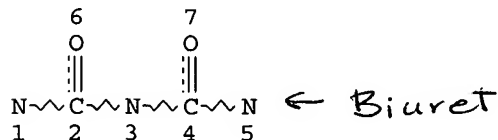
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE

L2 707 SEA FILE=REGISTRY SSS FUL L1

L5 275 SEA FILE=REGISTRY ABB=ON PLU=ON L2 NOT RSD/FA ← No ring systs. present

L3 STR



NODE ATTRIBUTES:

CONNECT IS E1 RC AT 1
CONNECT IS X2 RC AT 3

Searcher : Shears 571-272-2528

CONNECT IS E1 RC AT 5
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE

L4 120 SEA FILE=REGISTRY SSS FUL L3
 L6 72 SEA FILE=REGISTRY ABB=ON PLU=ON L4 NOT RSD/FA

FILE 'CAPLUS' ENTERED AT 14:55:57 ON 10 JUL 2006

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FILE COVERS 1907 - 10 JUL 2006 VOL 145 ISS 3
 FILE LAST UPDATED: 9 JUL 2006 (20060709/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

L7 234 S L5/P
 L8 160 S L6(L) (RACT OR RCT)/RL
 L9 27 S L7 AND L8
 E1 THROUGH E37 ASSIGNED

Reactant → *Reactant/reagent*

L9 ANSWER 1 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2006:539910 CAPLUS
 DOCUMENT NUMBER: 145:50847
 TITLE: Manufacture of starch phosphate, phosphorylated
 cottons and other derivatives for use in wound

INVENTOR(S): Mohajer, Yousef; Cohen, Irwin Kelman
 PATENT ASSIGNEE(S): Tissue Technologies, LLC, USA
 SOURCE: PCT Int. Appl., 38 pp.
 CODEN: PIXXD2
 Patent
 English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006060301	A2	20060608	WO 2005-US42868	20051130

Searcher : Shears 571-272-2528

10/829418

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,
CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM,
KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG,
MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT,
RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT,
TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU,
IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

US 2006142242 A1 20060629 US 2005-289646 20051130
PRIORITY APPLN. INFO.: US 2004-631982P P 20041130

AB Phosphate starch derivs. and phosphorylated cottons are useful in wound healing. Silver-derivatized wound care products are provided which survive washing and remain part of the wound care product. Silver-derivatized wound care products are provided that have favorable elastase-sequestering activity while advantageously appearing white-colored, without needing to darken to gray or black as usually would occur when working with silver. Also, starch products with outstanding water uptake are provided.

IT 890050-60-9P

RL: IMF (Industrial manufacture); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(manufacture of starch phosphate, phosphorylated cottons and other derivs. for use in wound healing)

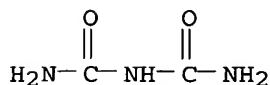
RN 890050-60-9 CAPLUS

CN Starch, phosphate, compd. with imidodicarbonic diamide (9CI) (CA INDEX NAME)

CM 1

CRN 108-19-0

CMF C2 H5 N3 O2



CM 2

CRN 11120-02-8

CMF H3 O4 P . x Unspecified

CM 3

CRN 9005-25-8

CMF Unspecified

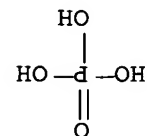
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

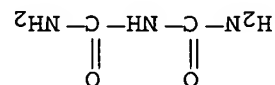
CM 4

CRN 7664-38-2

Searcher : Shears 571-272-2528



IT 108-19-0, Bisuret
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (manufacture of starch phosphate, phosphorylated cottons and other
 derivs. for use in wound healing)
 RN 108-19-0 CAPLUS
 CN Imidodicarbonic diamide (9CI) (CA INDEX NAME)



L9 ANSWER 2 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2006:24755 CAPLUS
 DOCUMENT NUMBER: 144:269367
 TITLE: New Role for Urea as a Surfactant Headgroup
 Promoting Self-Assembly in Water

AUTHOR(S) : Fong, Celesta; Wells, Darrell; Krodkiwska, Irena;
 Hartley, Patrick G.; Drummond, Calum J.
 CSIRO Molecular and Health Technologies, Clayton,
 Victoria, 3169, Australia

SOURCE: Chemistry of Materials (2006), 18(3), 594-597
 CODEN: CMATFX; ISSN: 0897-4756
 PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Five HII, phase forming urea-based surfactants, namely, oleylurea

determine the phase transitions of the neat surfactants in the temperature
 calorimetry (DSC) and cross-polarized optical microscopy were used to
 hexahydrofarnesylurea (HFU) are reported. Differential scanning

range from 0 to 120°. The urea surfactants have very low water solubility
 The maximum solubility of the urea surfactants is less than 0.003 weight % (the
 min. amount of surfactant observable by our exptl. techniques) in the
 temperature range from 0 to 100°. Water penetration expts. as a
 function of temperature, with cross-polarized optical microscopy, were
 performed to determine whether lyotropic liquid crystalline phases were formed.
 There was no surfactant-water phase formation, as expected, for DDU
 and ODU. Water penetration expts. for each of the other neat
 surfactants exhibited similar phase formation. HFU can be employed to
 exemplify what happens. A hexagonal phase developed immediately at
 the interface on contact with water at ambient temperature (24 °C).
 It was assigned as an inverse phase structure on the basis of the very
 low solubility of HFU in water. Further, its formation at the
 surfactant-water interface demonstrates stability of the HII phase in
 excess water.

IT

672285-05-1P

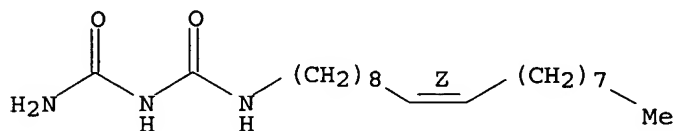
10/829418

RL: BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (new role for urea as surfactant headgroup promoting self-assembly in water)

RN 672285-05-1 CAPLUS

CN Imidodicarbonic diamide, N-(9Z)-9-octadecenyl- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

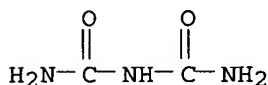


IT 108-19-0, Biuret

RL: RCT (Reactant); RACT (Reactant or reagent) (new role for urea as surfactant headgroup promoting self-assembly in water)

RN 108-19-0 CAPLUS

CN Imidodicarbonic diamide (9CI) (CA INDEX NAME)

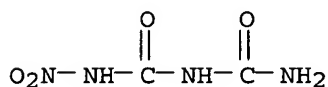


IT 16326-62-8P, Nitro biuret

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (new role for urea as surfactant headgroup promoting self-assembly in water)

RN 16326-62-8 CAPLUS

CN Imidodicarbonic diamide, N-nitro- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:202215 CAPLUS

DOCUMENT NUMBER: 142:413287

TITLE: Modeling the synthesis section of an industrial urea plant

AUTHOR(S): Hamidipour, Mohsen; Mostoufi, Navid; Sotudeh-Gharebagh, Rahmat

CORPORATE SOURCE: Process Design and Simulation Research Centre, Department of Chemical Engineering, University of Tehran, Tehran, 11365, Iran

SOURCE: Chemical Engineering Journal (Amsterdam, Netherlands) (2005), 106(3), 249-260
CODEN: CMEJAJ; ISSN: 1385-8947

Searcher : Shears 571-272-2528

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A model was developed for the synthesis section of an industrial urea plant, where the urea reactor is divided into several continuously stirred tank reactors (CSTRs). Formation of ammonium carbamate was assumed to occur through the heterogeneous reaction of carbon monoxide and ammonia. The formation of biuret in the reactor is also considered in the model. The validity of the proposed model was demonstrated using industrial data. The dynamic response of the process to some important parameters in the synthesis section was also studied.

IT

108-19-0P, Biuret

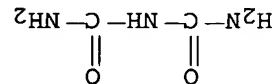
RL: EPR (Engineering process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); RCT (Reactant); PREP (Preparation); PROC (Process); RACT (Reactant or reagent) (intermediate; modeling the synthesis section and reactor of

Stamlicarbon process for urea production)

RN

108-19-0 CAPLUS

CN Imidodicarbonic diamide (9CI) (CA INDEX NAME)



REFERENCE COUNT: 15

THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 4 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:955650 CAPLUS

DOCUMENT NUMBER: 142:155559

TITLE:

Process and apparatus for producing hydrazodicarbonamide by using urea as starting material

INVENTOR(S):

Han, Sang Jin; Lee, Jun Hyeok
J & J Chemical Co., S. Korea

SOURCE:

Repub. Korean Kongkae Taeho Kongbo, No pp. given

DOCUMENT TYPE:

Patent

LANGUAGE:

Korean

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

KR 2003033629

KIND

A

DATE

20030501

APPLICATION NO.

KR 2001-65704

DATE

20011024
20011024

PRIORITY APPLN. INFO.:

KR 2001-65704

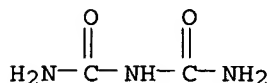
20011024

AB Provided are a process and an apparatus for producing

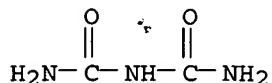
hydrazodicarbonamide (HDCA) by using urea as a starting material, which are economical and friendly to environment. The process for producing the hydrazodicarbonamide (HDCA) comprises the steps of: heat-decomposing the urea to obtain biuret (formula 1) and ammonia in a heat decomposing furnace; refining the obtained biuret in a recrystn. reactor; reacting the recrystd. biuret with a metal hypohalogen compound, or a halogen and a base to obtain a monohalobiuret metal salt (formula 2 or 3) in a first reactor; reacting the monohalobiuret metal salt with ammonia to

synthesize the hydrazodicarbonamide(HDCA) in a second reactor; separating the obtained hydrazodicarbonamide(HDCA) from surplus ammonia in an ammonia evaporator and transferring the separated ammonia to a concentrator, wherein the concentrator concs. the surplus ammonia and the ammonia obtained from the heat decomposition furnace and supplies to the second reactor. In the formula, M is metal and X is halogen.

IT 108-19-0P, Biuret
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of hydrazodicarbonamide)
 RN 108-19-0 CAPLUS
 CN Imidodicarbonic diamide (9CI) (CA INDEX NAME)

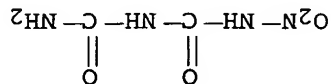


L9 ANSWER 5 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:548970 CAPLUS
 DOCUMENT NUMBER: 141:206802
 TITLE: The CA.M lattice revisited. Gel formation from a linear bis-isocyanuric acid and 2-amino-4,6-bis-(4-tert-butylphenylamino)-1,3,5-triazine
 AUTHOR(S): Plater, M. John; Sinclair, James P.; Aiken, Stuart; Gelbrich, Thomas; Hursthouse, Michael B.
 CORPORATE SOURCE: Department of Chemistry, University of Aberdeen, Aberdeen, AB24 3UE, UK
 SOURCE: Tetrahedron (2004), 60(30), 6385-6394
 CODEN: TETRAB; ISSN: 0040-4020
 PUBLISHER: Elsevier Science B.V.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 141:206802
 AB Five bis(isocyanuric) acid dimers have been prepared and characterized. The introduction of flexible alkyl chains was necessary to aid solubility. On mixing with N,N-bis(4-tert-butylphenyl)melamine in THF followed by slow evaporation, a viscous gel can form which is interpreted as evidence for the assembly of an infinite 2-D hydrogen bonded network.
 IT 108-19-0, Biuret
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (nitration; gel formation from a linear bis-isocyanuric acid and 2-amino-4,6-bis-(4-tert-butylphenylamino)-1,3,5-triazine)
 RN 108-19-0 CAPLUS
 CN Imidodicarbonic diamide (9CI) (CA INDEX NAME)



IT 16326-62-8P, 1-Nitrobiuret
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (transamidation; gel formation from a linear bis-isocyanuric acid and 2-amino-4,6-bis-(4-tert-butylphenylamino)-1,3,5-triazine)

RN 16326-62-8 CAPLUS
CN Imidodicarbonic diamide, N-nitro- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 6 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:472305 CAPLUS
DOCUMENT NUMBER: 141:38364
TITLE: Preparation of hydrazodicarbonamide as intermediate for azodicarbonamide at low cost

INVENTOR(S): Mori, Hiroshi; Ishikawa, Keiichiro; Hayashi,

PATENT ASSIGNEE(S): Hiroyasu, Tabuchi, Akira
Otsuka Chemical Co., Ltd., Japan
Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004161692	A2	20040610	JP 2002-330600	20021114
JP 2004161692			JP 2002-330600	20021114

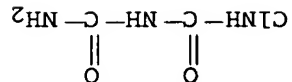
PRIORITY APPLN. INFO.:

OTHER SOURCE(S): CASREACT 141:38364; MARPAT 141:38364
AB H2NCONHNHCONH2, useful as intermediate for plastic blowing agent and food foaming agent, are prepared by H2NCONHC(OM):NX (X = halo; M = alkali metal) with ammonia. Thus, chlorination of HN(CONH2)2 with aqueous NaClO in aqueous NaOH gave 98.9% H2NCONHC(ONa):NCl, which was treated with 25% ammonia at 25° for 3 h to afford 91.9% H2NCONHNHCONH2 with 99.0% purity.

IT 701231-98-3P 701231-99-4P 701232-00-0P

701232-01-1P

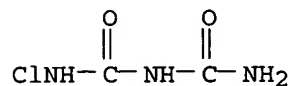
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); RRP (Preparation); RACT (Reactant or reagent)
(preparation of H2NCONHNHCONH2 as intermediate for plastic blowing agent and food foaming agent via halobipurets)
RN 701231-98-3 CAPLUS
CN Imidodicarbonic diamide, N-chloro-, monosodium salt (9CI) (CA INDEX NAME)



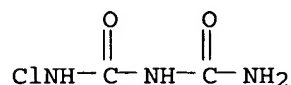
Na

10/829418

RN 701231-99-4 CAPLUS
CN Imidodicarbonic diamide, N-chloro- (9CI) (CA INDEX NAME)

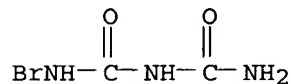


RN 701232-00-0 CAPLUS
CN Imidodicarbonic diamide, N-chloro-, monopotassium salt (9CI) (CA INDEX NAME)



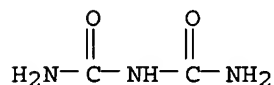
● K

RN 701232-01-1 CAPLUS
CN Imidodicarbonic diamide, N-bromo-, monosodium salt (9CI) (CA INDEX NAME)



● Na

IT 108-19-0, Biuret
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of H₂NCONHNHCONH₂ as intermediate for plastic blowing agent and food foaming agent via halobiurets)
RN 108-19-0 CAPLUS
CN Imidodicarbonic diamide (9CI) (CA INDEX NAME)



L9 ANSWER 7 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:220308 CAPLUS
DOCUMENT NUMBER: 140:272713
TITLE: Urea-, glycerate- and, hydroxyamide-headed hydrocarbon chain lyotropic phases forming surfactants
INVENTOR(S): Boyd, Benjamin James; Davey, Gregory Andrew; Drummond, Calum John; Fong, Celesta; Hartley, Patrick Gordon; Krodkiewska, Irena; Murphy,

Searcher : Shears 571-272-2528

Annette Joan; Tait, Russell John; Warr, Gregory
 Goodman; Wells, Darrell; Whitaker, Darryl
 Vanstone; Ye, Yuerong Rose
 Dbl Australia Pty Ltd, Australia
 PCT Int. Appl., 70 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2004022530	A1	20040318	WO 2003-AU1139	20030904
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RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, BG, CH, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GN, GQ, GW, ML, MR, NE, SN, TD, TG

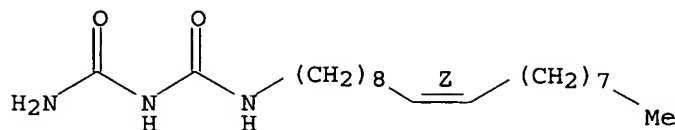
CA 2497322	AA	20040318	CA 2003-2497322	20030904
AU 2003257254	A1	20040329	AU 2003-257254	20030904
EP 1534669	A1	20050601	EP 2003-793472	20030904
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CN 1694865	A	20051109	CN 2003-824437	20030904
JP 2005538151	T2	20051215	JP 2004-533054	20030904
NO 2005001142	A	20050414	NO 2005-1142	20050303
US 2005249665	A1	20051110	US 2005-71113	20050304
PRIORITY APPLN. INFO.:			AU 2002-951216	A 20020905

WO 2003-AU1139 W 20030904

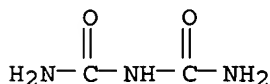
AB The invention provides a compound containing a head group based on urea, a branched alkyl chain, a branched alkoxy chain or an alkanyl chain. The comps. may be used as surfactants to form a lyotropic phase that is stable in excess polar solution. Thus, 1-(3,7,11,15-tetramethylhexadecyl)-1-(2-hydroxyethyl)urea showing lyotropic behavior was synthesized from 2-(3,7,11,15-tetramethyl)hexadecen-1-ol via several steps.

IT 672285-05-1P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (preparation of urea-, glycerate- and, hydroxyamide-headed hydrocarbon chain lyotropic phases forming surfactants)
 RN 672285-05-1 CAPLUS
 CN Imidodicarbonic diamide, N-(9Z)-9-octadecenyl- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IT 108-19-0, Biuret
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of urea-, glycerate- and, hydroxyamide-headed hydrocarbon
 chain lyotropic phases forming surfactants)
 RN 108-19-0 CAPLUS
 CN Imidodicarbonic diamide (9CI) (CA INDEX NAME)



REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

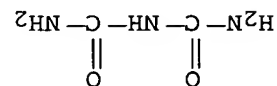
L9 ANSWER 8 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2003:1006935 CAPLUS
 DOCUMENT NUMBER: 140:43773
 TITLE: Method for preparing hydrazodicarbonamide from
 biuret
 INVENTOR(S): Lee, Chun-Hyuk; Han, Sang-Jin
 PATENT ASSIGNEE(S): J & J Chemical Co., Ltd., S. Korea
 SOURCE: PCT Int. Appl., 24 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003106400	A1	20031224	WO 2002-KR1862	20021007
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CN 1558896	A	20041229	CN 2001-823726	20011024
CN 1727331	A	20060201	CN 2005-10087780	20011024
KR 2003096792	A	20031231	KR 2002-33814	20020617
AU 2002368029	A1	20031231	AU 2002-368029	20021007
BR 2002015778	A	20050301	BR 2002-15778	20021007
EP 1513798	A1	20050316	EP 2002-807526	20021007
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				

JP 2005529179 T2 20050929 JP 2004-513234 20021007
 US 2005107566 A1 20050519 US 2004-15853 20041217
 PRIORITY APPLN. INFO.: KR 2002-33814 A 20020617
 CN 2001-823726 A3 20011024
 WO 2002-KR1862 W 20021007

OTHER SOURCE(S): CASREACT 140:43773; MARPAT 140:43773
 AB A method for preparing hydrazodicarbonamide using biuret as a starting material is described comprising: obtaining a metal monohalobisbiuret salt (e.g., sodium chlorobisbiuret salt) by reacting a biuret with a metal hypohalogen compound (e.g., sodium hypochlorite), or by reacting biuret with a halogenating agent and a base; and reacting the obtained metal monohalobisbiuret salt with ammonia, where the hydrazodicarbonamide is produced in the presence of a catalyst including bromine or iodine atom and generating bromine (e.g., sodium bromide) or iodine ion during the reaction.

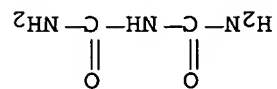
IT 518979-80-1P
 RL: IMF (Industrial manufacture); RCT (Reactant); PRBP
 (Preparation); RACT (Reactant or reagent)
 (in a method for preparing hydrazodicarbonamide from biuret)
 RN 518979-80-1 CAPLUS
 CN Imidodicarbonic diamide, chloro-, monosodium salt (9CI) (CA INDEX NAME)



D1-C1

● Na

IT 108-19-0, Biuret
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (method for preparing hydrazodicarbonamide from biuret)
 RN 108-19-0 CAPLUS
 CN Imidodicarbonic diamide (9CI) (CA INDEX NAME)



REFERENCE COUNT: 1
 THERE ARE 1 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L9 ANSWER 9 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2003:335064 CAPLUS
 DOCUMENT NUMBER: 138:355457
 TITLE: Method and apparatus for preparing

Searcher : Shears 571-272-2528

10/829418

hydrazodicarbonamide via the pyrolysis of urea
into biuret with conversion into halobiuret metal
salts and their subsequent reaction with ammonia

INVENTOR(S): Lee, Chun-hyuk; Han, Sang-jin
PATENT ASSIGNEE(S): J & J Chemical Co., Ltd., S. Korea
SOURCE: PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003035601	A1	20030501	WO 2001-KR1796	20011024
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1446378	A1	20040818	EP 2001-981121	20011024
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001017163	A	20041026	BR 2001-17163	20011024
JP 2005506378	T2	20050303	JP 2003-538117	20011024
US 2004199012	A1	20041007	US 2004-829418	20040421
PRIORITY APPLN. INFO.:			WO 2001-KR1796	W 20011024

OTHER SOURCE(S): CASREACT 138:355457; MARPAT 138:355457

AB An economically and environmentally desirable method for the manufacture of hydrazodicarbonamide comprises using: a pyrolysis furnace to obtain biuret and ammonia by pyrolyzing urea; a recrystn. reactor to purify the biuret obtained from the pyrolysis furnace; a first reactor to obtain a metal monohalobiuret salt by reacting the biuret with a metal hypohalogen compound or with halogen and a base; a second reactor to synthesize the hydrazodicarbonamide by reacting the monohalobiuret metal salt with ammonia; and an ammonia evaporator to sep. the excess ammonia from hydrazodicarbonamide and to supply the separated ammonia to an ammonia concentrator for recycle.

IT 108-19-0P, Biuret 518979-80-1P

RL: EPR (Engineering process); IMF (Industrial manufacture); PEP

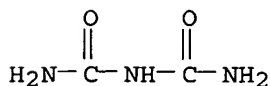
(Physical, engineering or chemical process); RCT (Reactant);

PREP (Preparation); PROC (Process); RACT (Reactant or reagent)

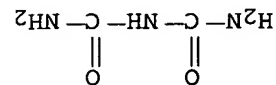
(method and apparatus for preparing hydrazodicarbonamide via the pyrolysis of urea into biuret with conversion into halobiuret metal salts and their subsequent reaction with ammonia)

RN 108-19-0 CAPLUS

CN Imidodicarbonic diamide (9CI) (CA INDEX NAME)



RN 518979-80-1 CAPLUS
CN Imidodicarbonic diamide, chloro-, monosodium salt (9CI) (CA INDEX NAME)



D1-C1

● Na

REFERENCE COUNT: 3
THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 10 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:843922 CAPLUS
DOCUMENT NUMBER: 137:355060
TITLE: Gas-generating propellants based on nitrogen-containing fuel mononitrates and nitrate salt oxidizers for inflation of vehicles airbags

INVENTOR(S): Burns, Sean P.; Khandhadia, Parash S.
PATENT ASSIGNEE(S): Automotive Systems Laboratory, Inc., USA
SOURCE: U.S., 12 pp., Cont.-in-part of U.S. 6,287,400.
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6475312	B1	20021105	US 2000-544694	200000407
US 6287400	B1	20010911	US 2000-516067	200000301
US 2003066584	A1	20030410	US 2002-279323	20021024
US 2006118218	A1	20060608	US 2005-153720	20050615
PRIORITY APPLN. INFO.:				
US 1999-130660P	P	19990423	US 1999-128101P	19990407
US 2000-516067	A2	20000301	US 1999-122234P	19990301
US 2000-544694	A2	20000407	US 2002-279323	20021024

AB Gas generating propellants are formulated by: (1) chilling an amount of HNO₃ to 0-20°, (2) adding a nitrogen-containing fuel to the chilled HNO₃ to form an aqueous solution containing the corresponding mononitrate, (3) adding an oxidizer and stirring the mixture to form a wet paste wetted by HNO₃ or the water and precipitate a solid solution of the fuel mononitrate

and oxidizer, (4) forming the solid solution into a paste, which is then shaped and dried. Suitable oxidizers generally are non-metal, alkali metal, and alkaline earth metal nitrates. Suitable nitrogen-containing fuels include mononitrates of 5-aminotetrazole, diaminotriazole, azodicarbonamide, hydrazodicarbonamide, semicarbazide, carbonylhydrazide, biuret, 3,5-diamino-1,2,4-triazole, dicyandiamide, and 3-amino-1,2,4-triazole. These compns. are especially suitable for inflating air bags and actuating seat belt pretensioners in passenger-restraint devices.

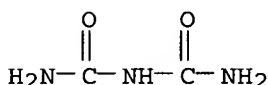
IT 108-19-0, Biuret

RL: RCT (Reactant); RACT (Reactant or reagent)

(fuel precursor; gas-generating propellants based on nitrogen-containing fuel mononitrates and nitrate salt oxidizers for inflation of vehicles airbags)

RN 108-19-0 CAPLUS

CN Imidodicarbonic diamide (9CI) (CA INDEX NAME)



IT 300352-39-0P, Imidodicarbonic diamide, mononitrate

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(fuel; gas-generating propellants based on nitrogen-containing fuel mononitrates and nitrate salt oxidizers for inflation of vehicles airbags)

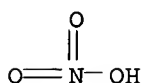
RN 300352-39-0 CAPLUS

CN Imidodicarbonic diamide, mononitrate (9CI) (CA INDEX NAME)

CM 1

CRN 7697-37-2

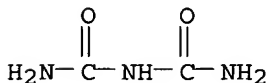
CMF H N O3



CM 2

CRN 108-19-0

CMF C2 H5 N3 O2



REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 11 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:656126 CAPLUS
DOCUMENT NUMBER: 135:351998
TITLE: Synthetic and thermal studies of polymeric chelates of some bis-biurets with first transition series metals

AUTHOR(S): Roy, Sushmita M.; Juneja, H. D.; Munshi, K. N.

CORPORATE SOURCE: Department of Chemistry, Nagpur University,

Nagpur, 440010, India

SOURCE:

Journal of Thermal Analysis and Calorimetry

(2001), 65(1), 197-203

CODEN: JTACF7; ISSN: 1418-2874

Kluwer Academic Publishers

PUBLISHER:

Journal

English

OTHER SOURCE(S):

CASREACT 135:351998

AB Some new coordination polymers were synthesized by combining adipoyl

bis-biuret and azelaoyl bis-biuret with metals of 1st transition

series viz Mn(II), Co(II), Ni(II), Cu(II) and Zn(II). They were

characterized by elemental anal., IR and reflectance spectral and

magnetic studies. A detailed thermal study was carried out and

the thermal stability compared. The results obtained are discussed.

IT

108-19-0, Biuret

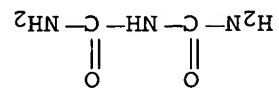
RL: RCT (Reactant); RACT (Reactant or reagent)

(condensation reaction with adipoyl and azelaoyl chlorides for preparation of transition metal adipoyl/azelaoyl-bis(biuret) polymeric chelates)

RN

108-19-0 CAPLUS

CN Imidodicarbonic diamide (9CI) (CA INDEX NAME)



IT

371776-09-9P 371776-10-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PRBP (Preparation);

RACT (Reactant or reagent)

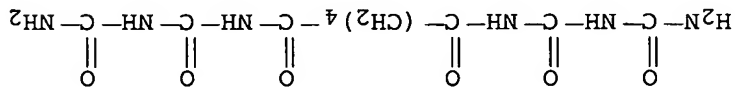
(preparation and complexation with transition metals to give polymeric

chelates)

RN

371776-09-9 CAPLUS

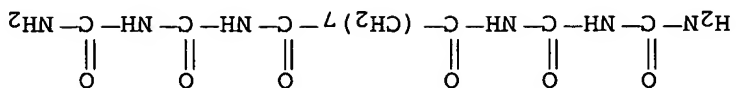
CN 2',4',11',13'-Tetraazatetradecanediamide, 3',5',10',12'-tetraoxo- (9CI) (CA INDEX NAME)



CN

371776-10-2 CAPLUS

2',4',14',16'-Tetraazahептадеcanediamide, 3',5',13',15'-tetraoxo- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

12

THERE ARE 12 CITED REFERENCES AVAILABLE FOR

Searcher : Shears 571-272-2528

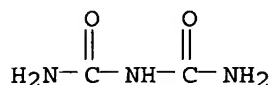
10/829418

THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L9 ANSWER 12 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:507666 CAPLUS
DOCUMENT NUMBER: 135:94276
TITLE: Method for synthesizing hydrazodicarbonamide from
the reaction of monohalobiuret metal salts and
ammonia in a solvent
INVENTOR(S): Lee, Chun Hyuk; Han, Sang Jin
PATENT ASSIGNEE(S): J & J Chemical Co., Ltd., S. Korea
SOURCE: PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

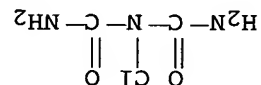
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001049652	A1	20010712	WO 2000-KR180	20000307
W: BR, CN, DE, ES, GB, ID, JP, MX, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
KR 2001068668	A	20010723	KR 2000-691	20000107
EP 1250310	A1	20021023	EP 2000-908098	20000307
EP 1250310	B1	20060524		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
BR 2000016991	A	20021231	BR 2000-16991	20000307
JP 2004506601	T2	20040304	JP 2001-550192	20000307
TW 515801	B	20030101	TW 2000-89107160	20000417
US 6635785	B1	20031021	US 2002-169127	20020627
PRIORITY APPLN. INFO.:			KR 2000-691	A 20000107
			WO 2000-KR180	W 20000307

OTHER SOURCE(S): MARPAT 135:94276
AB H2NCONHNHCONH2 hydrazodicarbonamide is prepared in high yield and
selectivity by the reaction of a monohalobiuret metal salt
H2NCON(X)CON(M)H or H2NCON(M)CON(X)H (M = Na, K, Ca; X = F, Br, Cl, I;
e.g., chlorobiuret sodium salt), inexpensively prepared from the
reaction of biuret and a metal hypohalogen compound (e.g., sodium
hypochlorite), with ammonia in a solvent (e.g., water).
IT 108-19-0, Biuret
RL: RCT (Reactant); RACT (Reactant or reagent)
(method for synthesizing hydrazodicarbonamide from the reaction of
monohalobiuret metal salts and ammonia in a solvent)
RN 108-19-0 CAPLUS
CN Imidodicarbonic diamide (9CI) (CA INDEX NAME)



IT 348147-72-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
RACT (Reactant or reagent)

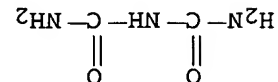
(method for synthesizing hydrazodicarbonamide from the reaction of monohalobisuret metal salts and ammonia in a solvent)
 RN 348147-72-8 CAPLUS
 CN Imidodicarbonic diamide, 2-chloro-, monosodium salt (9CI) (CA INDEX NAME)



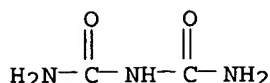
● Na

REFERENCE COUNT: 4
 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 13 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2001:128481 CAPLUS
 DOCUMENT NUMBER: 135:380161
 TITLE: Investigation of complex formation in the cobalt formate-bisuret-water system at 25°C
 AUTHOR(S): Tursunaliyeva, K. S.; Akhmatova, Zh. T.; Sulaimankulov, K. S.
 CORPORATE SOURCE: Kyrgyzstan
 SOURCE: Iztvestiya Natsional'noi Akademii Nauk Kyrgyzskoi Respubliki (2000), (2), 27-29
 CODEN: INKRRF
 PUBLISHER: Ilim
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian
 OTHER SOURCE(S): CASREACT 135:380161
 AB Co(O2CH)2 reacted with bisuret (L) in aqueous solution at 25° to form Co(O2CH)2.2L which was characterized by IR spectra and TGA.
 IT 108-19-0DP, Bisuret, cobalt complex
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (preparation); RACT (Reactant or reagent)
 RN 108-19-0 CAPLUS
 CN Imidodicarbonic diamide (9CI) (CA INDEX NAME)



IT 108-19-0, Bisuret
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reactant for preparation of cobalt formate bisuret complex)
 RN 108-19-0 CAPLUS
 CN Imidodicarbonic diamide (9CI) (CA INDEX NAME)



L9 ANSWER 14 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:855629 CAPLUS

DOCUMENT NUMBER: 134:30951

TITLE: Organic flame retardant compositions containing salts of nitrogen compounds with boron oxyacids

INVENTOR(S): Blount, David H.

PATENT ASSIGNEE(S): USA

SOURCE: U.S., 9 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6156240	A	20001205	US 1997-898931	19970723
US 6454968	B1	20020924	US 2000-692382	20001020
PRIORITY APPLN. INFO.:			US 1997-898931	A3 19970723

AB An organic flame retardant material consists of: (1) a nitrogen-containing salt of a boron oxyacid (containing >1 nitrogen and >1 boron atoms), prepared by reaction of 25-100 weight% of one or more boron oxyacid or salt with 25-100 weight% of a nitrogen-containing salt-forming compound and 10-25 weight% water (optionally containing aqueous NH₃), and (2) an addnl.

carbonizable

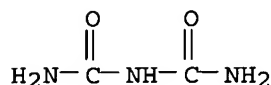
compound selected from phosphorus and sulfur compds. that release acids upon pyrolysis. The compns. may also contain fillers (e.g., urea, melamine, amino phosphates, phenoplasts, sawdust, graphite, etc.). Nitrogen-containing salt-forming compds., of component (1), are selected from ammonium carbonate, inorg. ammonium salts, amines, aminoplasts, thiourea, alkyl carbamates, sulfamic acids, nitriles, alkyl isocyanates, urea, amides, and polyamides. The compns. have use as flame retardants and as surfactants.

IT 108-19-ODP, Biuret, reaction products with powdered boric oxide
 RL: RCT (Reactant); SPN (Synthetic preparation); TEM
 (Technical or engineered material use); PREP (Preparation); RACT
 (Reactant or reagent); USES (Uses)

(flame retardants; organic flame retardant compns. containing salts of nitrogen compds. with boron oxyacids)

RN 108-19-0 CAPLUS

CN Imidodicarbonic diamide (9CI) (CA INDEX NAME)



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 15 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:227349 CAPLUS

DOCUMENT NUMBER: 132:241174

TITLE: Reactive plate for removal of gaseous impurities

and a method of its production
Matzke, Vladimír; Fischer, Petr

INVENTOR(S) :

AGS Jicin A.S., Czech Rep.

SOURCE:

Eur. Pat. Appl., 7 pp.

CODEN: EPXXDW

Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

EP 990463

A2

20000405

EP 1999-118929

19990925

EP 990463

A3

20000412

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, LT, LV, FI, RO

CZ 289145

B6

20011114

CZ 1998-3122

19980929

PRIORITY APPLN. INFO.:

AB

The invention relates to a reactor plate for cleaning air and/or

combustion products by removal of gaseous impurities and to a method
of its production consisting in mixing 100 mass units of urea with between
1 to 5 mass units of methylol urea, melting it then by exposure to up
to 140°, and heating it up then to between 165° and
185° whereby at least a part of urea is transformed to cyanuric
acid and to allophanic acid amide whereupon the melted substance is
poured into a mold and let to solidify. In its compact solid state,
the reactor plate produced by this method comprises solidified mixture
of urea, cyanuric acid, and allophanic acid.

IT

108-19-0P, Allophanic acid amide

RL: IMF (Industrial manufacture); RCT (Reactant); PREP

(Preparation); RACT (Reactant or reagent)

(reactive plate for removal of gaseous impurities and a method of

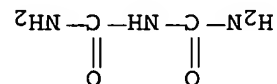
its production)

RN

108-19-0 CAPLUS

CN

Imidodicarbonic diamide (9CI) (CA INDEX NAME)



L9 ANSWER 16 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:147988 CAPLUS

DOCUMENT NUMBER: 132:259713

TITLE: Synthetic, structural and thermal studies of some

coordination polymers of sebacyl bis-biuret with

first transition series metals

Roy, Sushmita M.; Juneja, H. D.; Munshi, K. N.

Department of Chemistry, Nagpur University,

Nagpur, 440 010, India

SOURCE:

Asian Journal of Chemistry (1999), 11(4),

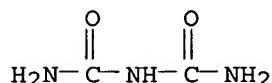
1251-1258

CODEN: AJCHEW; ISSN: 0970-7077

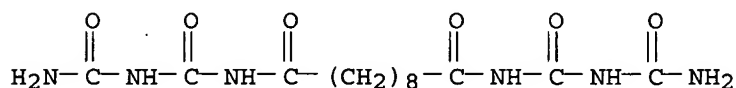
PUBLISHER: Asian Journal of Chemistry
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Some new polymeric chelates were synthesized by combining sebacylbis(biuret), (CH₂)₈(C:ONHC:ONHC:ONH₂)₂, with metals of 1st transition series, viz., Mn(II), Co(II), Ni(II), Cu(II) and Zn(II). Products were characterized by elemental anal., IR and reflectance spectral and magnetic studies. A detailed thermal study was carried out and thermal stability compared. Freeman-Carrol and Sharp-Wentworth methods were used to calculate the activation energy and order of reaction. Thermodyn. parameters were calculated, using the data of Freeman-Carrol method. The results obtained were suitably discussed.

IT 108-19-0, Imidodicarbonic diamide
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (for preparation of transition metal sebacylbis(biuret) coordination polymers)
 RN 108-19-0 CAPLUS
 CN Imidodicarbonic diamide (9CI) (CA INDEX NAME)



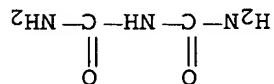
IT 262592-21-2P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
 RACT (Reactant or reagent)
 (for preparation of transition metal sebacylbis(biuret) coordination polymers)
 RN 262592-21-2 CAPLUS
 CN 2,4,15,17-Tetraazaoctadecanediamide, 3,5,14,16-tetraoxo- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 17 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1999:584659 CAPLUS
 DOCUMENT NUMBER: 132:196037
 TITLE: Study of the urea thermal decomposition (pyrolysis) reaction and importance to cyanuric acid production
 AUTHOR(S): Schaber, Peter M.; Colson, James; Higgins, Steven; Dietz, Ed; Thielen, Daniel; Anspach, Bill; Brauer, Jonathan
 CORPORATE SOURCE: Dept. of Chemistry, Canisius College, Buffalo, NY, 14208, USA
 SOURCE: American Laboratory (Shelton, Connecticut) (1999), 31(16), 13-14, 16-21
 CODEN: ALBYBL; ISSN: 0044-7749
 PUBLISHER: International Scientific Communications, Inc.

DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The decomposition products of urea pyrolysis (biuret, ammeline, ammelide, melamine) were examined and based on the findings a general temperature-dependent reaction scheme for the overall urea pyrolysis reaction was developed which included the formation of cyanuric acid.
 IT 108-19-0P, Biuret
 RL: FMU (Formation, unclassified); IMF (Industrial manufacture);
 RCT (Reactant); FORM (Formation, nonpreparative); PREP (Preparation); RACT (Reactant or reagent)
 (In urea pyrolysis reaction in relation to cyanuric acid production)
 RN 108-19-0 CAPLUS
 CN Imidodicarbonic diamide (9CI) (CA INDEX NAME)



REFERENCE COUNT: 17
 THERE ARE 17 CITED REFERENCES AVAILABLE IN THE
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

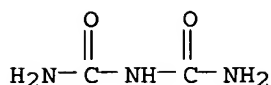
L9 ANSWER 18 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:3185 CAPLUS
 DOCUMENT NUMBER: 124:163151
 TITLE: New paramagnetic palladium complexes

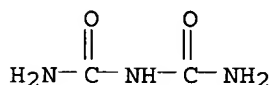
AUTHOR(S): Miteva, M.; Gencheva, G.; Mincheva, N.
 CORPORATE SOURCE: Department Chemistry, University Sofia, Sofia, 1126, Bulg.
 SOURCE: Conference on Coordination Chemistry (1995), 15th (Current Trends in Coordination Chemistry), 145-50

PUBLISHER: Slovak Technical University Press
 DOCUMENT TYPE: Journal
 LANGUAGE: English

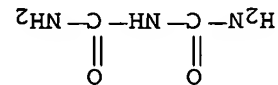
AB Paramagnetic Pd complexes with amide-containing ligands containing structure of bis(biureta)(2H)-N1,N5)palladium complex NH4[Pd(Bi-2H)2] (Bi-2H = dianion HNCNHCNHNH2-, formed by deprotonation of biuret mol.) was suggested. The observed EPR spectrum showing two component anisotropy with $g_{\parallel} = 2.034$ and $g_{\perp} = 2.001$ is typical for low-spin Pd(III) complexes with tetragonal symmetry. The low field values for different temps. ($\mu_{\text{eff}} = 1.02 \mu_B$ at ambient temperature) indicate either significant π -electron d. transfer from ligand to metal or to antiferromagnetic coupling of two Pd3+ complex mols. The EPR spectrum of the complex exhibits superhyperfine structure at g_{\perp} consisting of 9 lines ($A_N = 14.5 \text{ Oe}$), due most likely to 4 equiv N-atoms ($I = 1$) placed in the xy-plane. These data together with the IR are showing coordination of the ligand via the two deprotonated terminal -NH- groups, while the -C=O groups are not involved in the coordination.
 IT 108-19-0, Biuret
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (for preparation of palladium complex)
 RN 108-19-0 CAPLUS
 CN Imidodicarbonic diamide (9CI) (CA INDEX NAME)



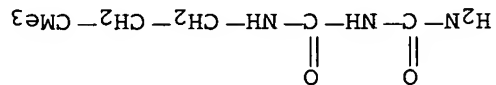
IT 108-19-0DP, Biuret, palladium complex, reaction products with TCNQ
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and ESR of)
 RN 108-19-0 CAPLUS
 CN Imidodicarbonic diamide (9CI) (CA INDEX NAME)



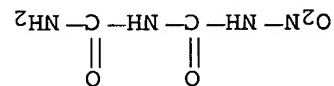
L9 ANSWER 19 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1993:254892 CAPLUS
 DOCUMENT NUMBER: 118:254892
 TITLE: Molecular self-assembly through hydrogen bonding: supramolecular aggregates based on the cyanuric acid-melamine lattice
 AUTHOR(S): Seto, Christopher T.; Whitesides, George M.
 CORPORATE SOURCE: Dep. Chem., Harvard Univ., Cambridge, MA, 02138, USA
 SOURCE: Journal of the American Chemical Society (1993), 115(3), 905-16
 CODEN: JACSAT; ISSN: 0002-7863
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 118:254892
 AB Reaction of the tris(melamine) derivs. hubM3 (C₆H₃-1,3,5-[CONHC₆H₄-3-N(CH₂C₆H₄-4-CMe₃)COC₆H₃-2-NHC₃N₃(NH₂)(NHCH₂CH₂CMe₃)-5-Br]3) and flexM3 (C₆H₃-1,3,5-[CO₂(CH₂)₃OOCOC₆H₄-2-NHC₃N₃(NH₂)(NHCH₂CH₂CMe₃)]3) with R1CA (neoheptyl isocyanurate) and R2CA (3,3,3-triphenylpropyl isocyanurate), resp., in CHCl₃ yields structurally well-defined supramol. aggregates hubM3(R1CA)₃ and flexM3(R2CA)₃. These structures were characterized using ¹H NMR, ¹³C NMR, and UV spectroscopy, gel permeation chromatog., and vapor pressure osmometry. FlexM3 is a conformationally flexible analog of hubM3. The greater degree of preorganization that is built into the mol. structure of hubM3 compared to flexM3 makes hubM3(R1CA)₃ a more stable aggregate than flexM3(R2CA)₃. These self-assembling structures are the first step in a program to design, synthesize, and develop methods to characterize supramol. complexes that are held together by networks of noncovalent interactions.
 IT 108-19-0, Biuret
 RL: RCT (Reactant); RACT (Reactant or reagent) (nitration of)
 RN 108-19-0 CAPLUS
 CN Imidodicarbonic diamide (9CI) (CA INDEX NAME)



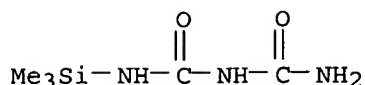
IT 147355-11-1P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
 RACT (Reactant or reagent)
 (preparation and reaction with di-Et carbonate)
 RN 147355-11-1 CAPLUS
 CN Imidodicarbonic diamide, N-(3,3-dimethylbutyl) - (9CI) (CA INDEX NAME)



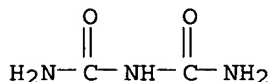
IT 16326-62-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
 RACT (Reactant or reagent)
 (preparation and reaction with dimethylbutylamine)
 RN 16326-62-8 CAPLUS
 CN Imidodicarbonic diamide, N-nitro- (9CI) (CA INDEX NAME)



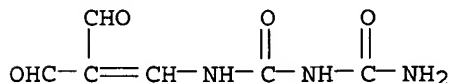
L9 ANSWER 20 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1993:80992 CAPLUS
 DOCUMENT NUMBER: 118:80992
 TITLE: Interaction of biuret and thiobisuret with hexamethyldisilazane
 AUTHOR(S): Gordetsov, A. S.; Zilina, S. V.; Martynova, L. N.; Moseeva, E. M.; Skobeleva, S. E.; Postnikova, T. K.; Tsvetkova, V. L.; Zakharova, R. P. Nizhegorod. Med. Inst., Nizhniy Novgorod, Russia Metalloorganicheskaya Khimiya (1992), 5(4), 811-17 CODEN: MEKHEX; ISSN: 0235-0114
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian
 OTHER SOURCE(S): CASREACT 118:80992
 AB The reactions of biuret or thiobisuret with hexamethyldisilazane gave N,N'-bis(trimethylsilyl)urea, N-trimethylsilylbisuret, or N,N'-bis(trimethylsilyl)biuret or -thiobiuret depending on the reaction conditions.
 IT 124646-13-5P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and DTA of)
 RN 124646-13-5 CAPLUS
 CN Imidodicarbonic diamide, N-(trimethylsilyl) - (9CI) (CA INDEX NAME)



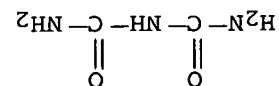
IT 108-19-0, Biuret
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with hexamethyldisilazane)
 RN 108-19-0 CAPLUS
 CN Imidodicarbonic diamide (9CI) (CA INDEX NAME)



L9 ANSWER 21 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1991:470882 CAPLUS
 DOCUMENT NUMBER: 115:70882
 TITLE: Reactivity of triformylmethane. I. Reactions of
 triformylmethane with selected types of amino
 compounds
 AUTHOR(S): Arnold, Zdenek; Budesinsky, Milos; Pankova,
 Magdalena
 CORPORATE SOURCE: Inst. Org. Chem. Biochem., Czech. Acad. Sci.,
 Prague, 166 10, Czech.
 SOURCE: Collection of Czechoslovak Chemical Communications
 (1991), 56(5), 1019-31
 CODEN: CCCCAK; ISSN: 0010-0765
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 115:70882
 AB Reactions of HC(CHO)3 (I) with various amino compds. were studied. I
 reacts spontaneously with NH3, primary amines, amino acids and their
 esters, urea, and related compds. including carbamic acid derivs.
 Reactions with amides of carboxylic and sulfonic acids require
 catalysis with Lewis acids. Primary products are
 (aminomethylene)malonaldehyde derivs. Reactions of I with excess of
 selected primary amines, Me2NH, and morpholine were also studied.
 IT 135305-07-6P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (preparation and NMR of)
 RN 135305-07-6 CAPLUS
 CN Imidodicarbonic diamide, N-(2-formyl-3-oxo-1-propenyl)-. (9CI) (CA
 INDEX NAME)



IT 108-19-0, Biuret
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with triformylmethane)
 RN 108-19-0 CAPLUS
 CN Imidodicarbonic diamide (9CI) (CA INDEX NAME)



L9 ANSWER 22 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1991:5791 CAPLUS

DOCUMENT NUMBER: 114:5791

TITLE: Acylation of biurets with carboxylic acids in

tuning sulfuric acid

Kravchenya, N. A.

Grodno, Gos. Med. Inst., Grodno, USSR

Vestsi Akademii Nauk BSSR, Seriya Khimichnykh

Nauk (1990), (4), 118-20

CODEN: VBSKAK; ISSN: 0002-3590

DOCUMENT TYPE: Journal

LANGUAGE: Russian

OTHER SOURCE(S): CASREACT 114:5791

AB Acylation of H₂NCXNHCHXNH₂ (X = O, S) with RCO₂H (R = alkyl, Ph) in 24%

oleum at 40-50° gave 63-80% R1NHGXNHCHXNH₂ (R1 = Ac, COEt, COPr, COBu, COC₅H₁₁, COPh, R2 = H, X = O, R1 = R2 = COBu, COC₅H₁₁, COC₆H₁₃, X = S).

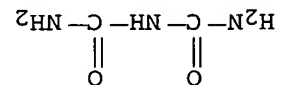
IT 108-19-0, Biuret

RT: RCT (Reactant); RACT (Reactant or reagent)

(acylation of, by carboxylic acids in oleum)

RN 108-19-0 CAPLUS

CN Imidodicarbonic diamide (9CI) (CA INDEX NAME)



IT 591-38-8P 16617-05-3P 89691-73-6P

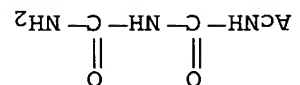
90206-44-3P 130880-88-5P

RT: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

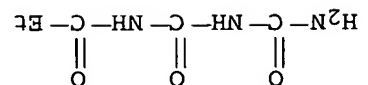
RN 591-38-8 CAPLUS

CN Acetamide, N-[[[amino]carbonyl]amino]carbonyl] - (9CI) (CA INDEX NAME)



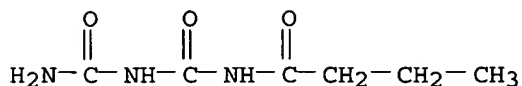
RN 16617-05-3 CAPLUS

CN Propanamide, N-[[[amino]carbonyl]amino]carbonyl] - (9CI) (CA INDEX NAME)

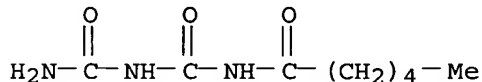


10/829418

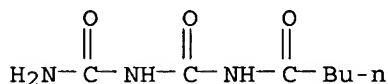
RN 89691-73-6 CAPLUS
CN Butanamide, N-[[[(aminocarbonyl)amino]carbonyl] - (9CI) (CA INDEX NAME)



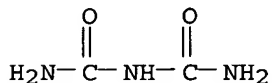
RN 90206-44-3 CAPLUS
CN Hexanamide, N-[[[(aminocarbonyl)amino]carbonyl] - (9CI) (CA INDEX NAME)



RN 130880-88-5 CAPLUS
CN Pentanamide, N-[[[(aminocarbonyl)amino]carbonyl] - (9CI) (CA INDEX NAME)



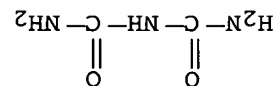
L9 ANSWER 23 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1985:168606 CAPLUS
DOCUMENT NUMBER: 102:168606
TITLE: Uses, properties and production of biuret from urea
AUTHOR(S): Koryakin, A. G.; Karlik, V. M.; Zagranichnyi, V. I.
CORPORATE SOURCE: USSR
SOURCE: Khimicheskaya Promyshlennost (Moscow, Russian Federation) (1985), (2), 99-101
CODEN: KPRMAW; ISSN: 0023-110X
DOCUMENT TYPE: Journal; General Review
LANGUAGE: Russian
AB Use of biuret (I) [108-19-0], thermal decomposition of I and I acid derivs., and preparation of I from urea [57-13-6] are reviewed with 66 refs.
IT 108-19-0P
RL: PREP (Preparation)
(preparation, thermal decomposition and uses of)
RN 108-19-0 CAPLUS
CN Imidodicarbonic diamide (9CI) (CA INDEX NAME)



IT 108-19-0D, acid derivs.
RL: RCT (Reactant); RACT (Reactant or reagent)
(thermal decomposition of)

RN 108-19-0 CAPLUS

CN Imidodicarbonic diamide (9CI) (CA INDEX NAME)



L9 ANSWER 24 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1975:478531 CAPLUS

DOCUMENT NUMBER:

83:78531

TITLE:

Acyl derivatives of biurets. VI.

1-(Halooacetyl)biurets and 1,5-bis(trichloroacetyl)biuret

AUTHOR(S) :

Ostrogovich, G.; Catalina, Elena

CORPORATE SOURCE:

Lab. Chim. Org., Fac. Chim. Ind., Timisoara, Rom.

SOURCE:

Buletinul Stiintific si Tehnic al Institutului

Politehnic Traian Vuia Timisoara, Seria Chimie

(1974), 19(1), 7-18

CODEN: BTICBN; ISSN: 0378-9675

DOCUMENT TYPE:

Journal

LANGUAGE:

Romanian

AB Treatment of NH₂CONHCONH₂ with excess ClCH₂COCl, BrCH₂COCl, orCl₃CCOCl gave ClCH₂CONHCONHCONH₂ (I), BrCH₂CONHCONHCONH₂, orCl₃CCONHCONHCONHCOCCl₃, resp. I and NaI in Me₂CO gaveICH₂CONHCONHCONH₂. I and NH₃-EtOH gave NH₂COCH₂NH₂.HCl; I and Et₃N inMe₂CO initially gave Et₃N+CH₂CONHCONHCONH₂ Cl⁻ which with excess Et₃Ngave <40% Et₃NHCl depending on the amount Et₃N used.

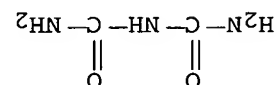
IT 108-19-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(haloacetylation of)

RN 108-19-0 CAPLUS

CN Imidodicarbonic diamide (9CI) (CA INDEX NAME)



IT 53517-37-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PRP (Preparation);

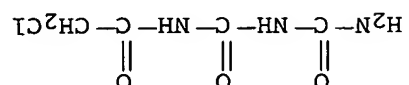
RACT (Reactant or reagent)

(Preparation and reaction of, with sodium iodide or amines)

RN 53517-37-6 CAPLUS

CN Acetamide, N-[[[amlinocarbonyl]amino]carbonyl]-2-chloro- (9CI) (CA

INDEX NAME)



IT 53517-36-5P 56842-57-0P

RL: SPN (Synthetic preparation); PRP (Preparation)

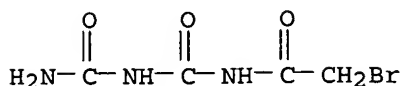
(preparation of)

RN 53517-36-5 CAPLUS

Searcher : Shears 571-272-2528

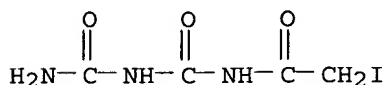
10/829418

CN Acetamide, N-[[[(aminocarbonyl)amino]carbonyl]-2-bromo- (9CI) (CA INDEX NAME)



RN 56842-57-0 CAPLUS

CN Acetamide, N-[[[(aminocarbonyl)amino]carbonyl]-2-iodo- (9CI) (CA INDEX NAME)



L9 ANSWER 25 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1975:124829 CAPLUS

DOCUMENT NUMBER: 82:124829

TITLE: Triuret

INVENTOR(S): Beale, Alvin F., Jr.

PATENT ASSIGNEE(S): Dow Chemical Co.

SOURCE: U.S., 6 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3862223	A	19750121	US 1973-347237	19730402
PRIORITY APPLN. INFO.:			US 1973-347237	A 19730402

AB Triuret was prepared by pyrolysis of a biuret feedstock (containing 8% (H₂N)₂CO, 10% cyanuric acid, 34.0% triuret, 48.0% biuret and trace amts. of ammeline) in the presence of an inert liquid carrier, e.g., white mineral oil, at 112-40°. The formation of cyanuric acid was minimized by carefully controlling the (H₂N)₂CO concentration and temperature

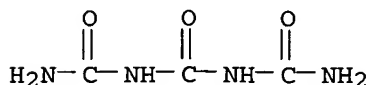
of the pyrolysis reaction mixture

IT 556-99-0P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 556-99-0 CAPLUS

CN Diimidotricarbonic diamide (9CI) (CA INDEX NAME)



IT 108-19-0

RL: RCT (Reactant); RACT (Reactant or reagent)
(pyrolysis of)

Searcher : Shears 571-272-2528

RN 108-19-0 CAPLUS
CN Imidodicarbonic diamide (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{H}_2\text{N}-\text{C}-\text{NH}-\text{C}-\text{NH}_2 \\ || \quad || \\ \text{O} \quad \text{O} \end{array}$$

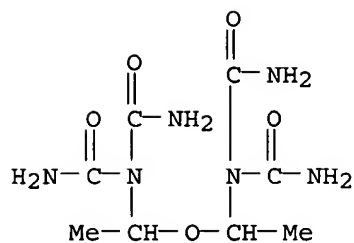
L9 ANSWER 26 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1968:418577 CAPLUS
DOCUMENT NUMBER: 69:18577
TITLE: Interaction of biuret with aldehydes and ketones
AUTHOR(S): Kretov, A. E.; Malinovsky, M. S.; Baitrak, V. I.
CORPORATE SOURCE: Dnepropetrovsk. Gos. Univ., Dnepropetrovsk, USSR
SOURCE: Zhurnal Obshchei Khimii (1968), 38(1), 47-9
CODEN: ZOKHAA; ISSN: 0044-460X
DOCUMENT TYPE: Journal
LANGUAGE: Russian
GI For diagram(s), see printed CA issue.
AB To 5.2 g. biuret was added 60 ml. 5% HCl and 7.5-10 ml. 40% formalin, and the mixture kept at 30-50 until dissolved, then kept 1 hr. at room temperature to yield 4.2 g. I, m. 214-15. Similar reaction with appropriate carbonyl compds. (5% HCl catalyst for aldehydes and 15% NaOH catalyst for reaction with ketones) gave the following: (H2NCO)2NCHROCHRN(CONH2)2 (R shown): Me, m. 189-90; Et, m. 186-7; Pr, m. 191-2; iso-Pr, m. 192-3. Also obtained were MeCH:NCONHCON:CHMe, m. 174-6; (H2NCO)2NC(OH)Me2, m. 205-7; (H2NCO)2NCMeEtOH, m. 210-11; Me2C:NCONHCONH2 (II), m. 88-90; and MeEtC:NCONHCONH2 (III), m. 176-8. The reactions with ketones required 3 hrs. on a steam bath for completion, in the presence of 15% aqueous NaOH catalyst. Rf values for I and III in paper chromatography were tabulated in acid and alkaline media. II and III were best prepared from biuret and the appropriate ketones in 70% H2SO4 in 2 hrs. at 100.

IT 20115-95-1P 20115-96-2P 20115-97-3P
20115-98-4P 20115-99-5P 20116-01-2P
20116-02-3P 20116-03-4P 20116-04-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 20115-95-1 CAPLUS
CN Biuret, 3,3'-[methylenebis(oxyethylene)]bis- (8CI) (CA INDEX NAME)

$$\begin{array}{c} \text{H}_2\text{N}-\text{C}-\text{N}-\text{CH}_2-\text{O}-\text{CH}_2-\text{O}-\text{CH}_2-\text{N}-\text{C}-\text{NH}_2 \\ || \quad || \quad || \quad || \\ \text{O} \quad \text{O} \quad \text{O} \quad \text{O} \end{array}$$

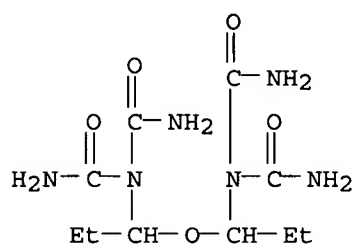
RN 20115-96-2 CAPLUS
CN Biuret, 3,3'-(oxydiethylidene)bis- (8CI) (CA INDEX NAME)

Searcher : Shears 571-272-2528



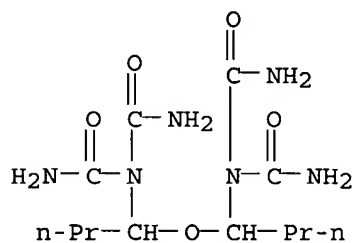
RN 20115-97-3 CAPLUS

CN Biuret, 3,3'-(oxydipropylidene)bis- (8CI) (CA INDEX NAME)



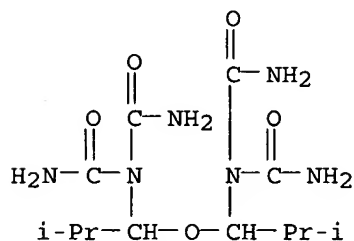
RN 20115-98-4 CAPLUS

CN Biuret, 3,3'-(oxydibutylidene)bis- (8CI) (CA INDEX NAME)



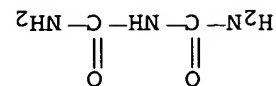
RN 20115-99-5 CAPLUS

CN Biuret, 3,3'-(oxydiisobutylidene)bis- (8CI) (CA INDEX NAME)

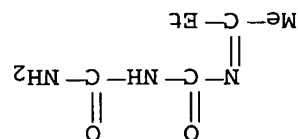


RN 20116-01-2 CAPLUS

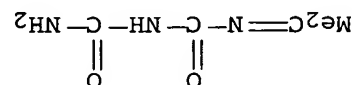
CN Biuret, 3-(1-hydroxy-1-methylethyl)- (8CI) (CA INDEX NAME)



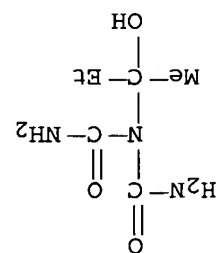
IT 108-19-0
 RL: RCT (Reactant); RACT (Reactant or reagent)
 RN 108-19-0 CAPLUS
 CN Imidodicarbonic diamide (9CI) (CA INDEX NAME)
 (reaction of, with aliphatic aldehydes and ketones)



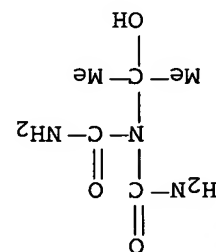
RN 20116-04-5 CAPLUS
 CN Butiret, 1-sec-butylidene- (8CI) (CA INDEX NAME)



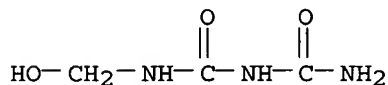
RN 20116-03-4 CAPLUS
 CN Butiret, 1-isopropylidene- (8CI) (CA INDEX NAME)



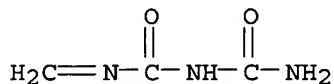
RN 20116-02-3 CAPLUS
 CN Butiret, 3-(1-hydroxy-1-methylpropyl)- (8CI) (CA INDEX NAME)



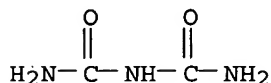
L9 ANSWER 27 OF 27 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1967:481787 CAPLUS
 DOCUMENT NUMBER: 67:81787
 TITLE: Condensation of oxamide and biuret with formaldehyde
 AUTHOR(S): Movsumzade, M. M.; Kerimova, N. G.
 SOURCE: Azerbaidzhanskii Khimicheskii Zhurnal (1967), (1), 30-4
 CODEN: AZKZAU; ISSN: 0005-2531
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian
 AB cf. CA 59: 13818g. To a stirred mixture of 1 g. Ba(OH)₂ (I), 8.8 g. oxamide (II), and 20 ml. H₂O, 13.6 g. 22% aqueous H₂CO was added dropwise at 5° during 1.5 hrs. to give 6 g. H₂NCOCONHCH₂OH, m. 180° (H₂O). Analogously, 6.8 g. H₂CO, 0.5 g. I, 5.15 g. biuret (III), and 50 ml. H₂O gave 3.5 g. H₂NCONHCONHCH₂OH, m. 108° (EtOH). Analogously, 27.2 g. H₂CO, 1.5 g. I, and 10.3 g. III heated 2 hrs. at 35-40° gave 7 g. NH(CONHCH₂OH)₂, m. 148° (EtOH). II (4.4 g.), 6.6 g. H₂CO, and 1 ml. H₂SO₄ stirred 12 hrs. at 90° gave H₂NCOCON:CH₂, m. 140° (H₂O). Similarly, 5.15 g. III, 6.8 g. H₂CO, and 1 ml. H₂SO₄ stirred 1 hr. at 90° gave H₂NCONHCON:CH₂, m. 192°, whereas 5.15 g. III, 13.6 g. H₂CO, and 1 ml. H₂SO₄ stirred 2 hrs. at 90° yielded NH(CON:CH₂)₂, m. 218°.
 IT 17643-49-1P 17643-50-4P
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)
 RN 17643-49-1 CAPLUS
 CN Biuret, 1-(hydroxymethyl)- (8CI) (CA INDEX NAME)



RN 17643-50-4 CAPLUS
 CN Biuret, 1-methylene- (8CI) (CA INDEX NAME)



IT 108-19-0
 RL: RCT (Reactant); RACT (Reactant or reagent) (reaction with formaldehyde)
 RN 108-19-0 CAPLUS
 CN Imidodicarbonic diamide (9CI) (CA INDEX NAME)



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FILE LAST UPDATED: 01 May 1997 (19970501/UP)

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L10	90 S L5
L11	46 S L6
L13	46 S L10(L)L11

L13	ANSWER 1 OF 46	CAOLD	COPYRIGHT 2006 ACS on STN
AN	CA65:8407g	CAOLD	
TI	granulated potash		
AU	Dvornichenko, K. I.; Marenich, E. E.		
PA	Scientific-Research Institute of Basic Chemistry		
DT	Patent		
TI	prevention of caking and dust formation of NaCl		
PA	Wintershall A.-G.		
DT	Patent		

PATENT NO.	KIND	DATE
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PI	BE 657346			
PI	SU 181066			
IT	108-19-0	290-87-9	290-96-0	7757-74-6
L13	ANSWER 2 OF 46	CAOLD	COPYRIGHT 2006 ACS on STN	
AN	CA65:6246f	CAOLD		
TI	fertilizing action of urea depending on the biuret content			
AU	Goraliski, Jozef; Baran, K.; Malczewski, Z.			
IT	108-19-0			

L13	ANSWER 3 OF 46	CAOLD	COPYRIGHT 2006 ACS on STN
AN	CA65:4248f	CAOLD	
TI	ultraviolet spectrophotometric estimation of biuret in urea		
AU	Sanyal, R. M.; Pal, P. K.; Banerji, K. C.		
IT	108-19-0		

L13	ANSWER 4 OF 46	CAOLD	COPYRIGHT 2006 ACS on STN
AN	CA65:2955h	CAOLD	
TI	effects of urea, biuret, and NH3 on germination and early growth of corn		
AU	Hunter, Albert S.; Rosenau, W. A.		
IT	108-19-0		

L13	ANSWER 5 OF 46	CAOLD	COPYRIGHT 2006 ACS on STN
AN	CA65:2132a	CAOLD	
TI	biuret control in urea process		

Searcher : Shears 571-272-2528

10/829418

AU Cook, Lucien H.
PA Chemical Construction Corp.
DT Patent

PATENT NO.	KIND	DATE
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PI	US 3211788	1965
IT	108-19-0	

L13 ANSWER 6 OF 46 CAOLD COPYRIGHT 2006 ACS on STN

AN CA65:2125d CAOLD
TI production of low-biuret urea crystals
AU Rosenbloom, William J.

DT Patent
TI urea (low-biuret), crystallizing of
PA Chemical Construction Corp.

PATENT NO.	KIND	DATE
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PI	US 3251879	1966
IT	108-19-0	10040-14-9

L13 ANSWER 7 OF 46 CAOLD COPYRIGHT 2006 ACS on STN

AN CA65:1115a CAOLD
TI nonprotein synthetic N compds. in ruminant feeding
AU Chomyszyn, Mirosław

IT 108-19-0

L13 ANSWER 8 OF 46 CAOLD COPYRIGHT 2006 ACS on STN

AN CA64:19416c CAOLD
TI dimethylolbiuret
AU Bairak, V. I.

PATENT NO.	KIND	DATE
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PI	SU 177877	
IT	43137-52-6	52783-45-6

L13 ANSWER 9 OF 46 CAOLD COPYRIGHT 2006 ACS on STN

AN CA64:16361a CAOLD
TI adaptation to the palatability of urea, biuret, and diammonium
phosphate as nonprotein N sources for ruminants
AU Schaadt, H., Jr.; Johnson, R. R.; McClure, K. E.

IT 108-19-0

L13 ANSWER 10 OF 46 CAOLD COPYRIGHT 2006 ACS on STN

AN CA64:15752c CAOLD
TI urea with low biuret content
PA Allied Chemical Corp.

PATENT NO.	KIND	DATE
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PI	NL 6502543	
	FR 1425802	
IT	108-19-0	

L13 ANSWER 11 OF 46 CAOLD COPYRIGHT 2006 ACS on STN

AN CA64:15700c CAOLD
TI kinetic study on the thermolysis and the subsequent transformations of
urea - (II) reaction mechanism of the formation of guanidine and
cyanuric bases, ammelide, ammeline, and melamine, through thermolysis

- of urea as such, (III) thermodynamic and kinetic analysis of the deamination and dehydration of urea in the melt and the mechanism of these two primary reactions
- OSTROGOVICH, GEORGE; BACALOGLU, R.
 IT 75-13-8 108-19-0 108-80-5 420-04-2 626-50-6
 645-92-1 645-93-2 3159-68-0
- L13 ANSWER 12 OF 46 CAOLD COPYRIGHT 2006 ACS on STN
 AN CA64:12546a CAOLD
 TI reaction of Ag(I) ions with organic reagents containing the HNC:S grouping - (II) thiourea derivs.
 AU Stephen, William I.; Townshend, A.
 IT 7322-21-6 92258-50-9
- L13 ANSWER 13 OF 46 CAOLD COPYRIGHT 2006 ACS on STN
 AN CA64:8668a CAOLD
 TI urea and biuret as N sources for Rhizobium species
 AU Jensen, H. L.; Schroder, M.
 IT 108-19-0 1555-56-2 2090-82-6 17603-42-8
- L13 ANSWER 14 OF 46 CAOLD COPYRIGHT 2006 ACS on STN
 AN CA64:5247g CAOLD
 TI acetalization of poly(vinyl alc.) fibers
 AU Sopela, Wacław; Cypryk, J.; Kapecka, T.
 PA Instytut Włókien Sztucznych i Syntetycznych
 DT Patent
 PATENT NO. KIND DATE
 PL 49442 108-19-0
- L13 ANSWER 15 OF 46 CAOLD COPYRIGHT 2006 ACS on STN
 AN CA64:5247e CAOLD
 TI fixation of pigments on fiber materials
 AU Kuehn, Horst
 DT Patent
 PATENT NO. KIND DATE
 DE 32789 108-19-0
- L13 ANSWER 16 OF 46 CAOLD COPYRIGHT 2006 ACS on STN
 AN CA64:376h CAOLD
 TI poly(acrylic anhydride) and poly(methacrylic anhydride), solns. of Monsanto Co.
 DT Patent
 TI solns. of poly(acrylic anhydride)
 AU Miller, W. Lamar
 DT Patent
 PATENT NO. KIND DATE
 US 3218283 1965
 IT 96-48-0 108-19-0 111-69-3 137-20-2 632-22-4
 760-93-0 2051-76-5
- L13 ANSWER 17 OF 46 CAOLD COPYRIGHT 2006 ACS on STN
 AN CA64:3447f CAOLD
 TI kinetics of formation of biuret from urea in 2-methoxyethanol
 AU Kawasaki, Atsushi; Ogata, Y.
 IT 108-19-0 109-86-4

L13 ANSWER 18 OF 46 CAOLD COPYRIGHT 2006 ACS on STN
AN CA64:1044g CAOLD
TI microbiol. transformation of biuret
AU Jensen, H. L.; Koumaran, K. A.
IT 108-19-0

L13 ANSWER 19 OF 46 CAOLD COPYRIGHT 2006 ACS on STN
AN CA64:160g CAOLD
TI spectroscopic study of isomeric chalcones - (II)
AU Trakroo, P. P.; Mukhedkar, A. J.
IT 108-19-0 897-70-1 904-18-7 904-19-8 906-05-8
986-70-9 1214-47-7 14493-62-0 14493-67-5 16039-52-4 16635-13-5
18440-09-0 75794-02-4 81819-87-6 93316-97-3 93316-98-4 95812-35-4

L13 ANSWER 20 OF 46 CAOLD COPYRIGHT 2006 ACS on STN
AN CA63:16564d CAOLD
TI urea-HCHO condensation products
PA Stamicarbon N. V.
DT Patent
PATENT NO. KIND DATE

PI NL 289889
IT 108-19-0

L13 ANSWER 21 OF 46 CAOLD COPYRIGHT 2006 ACS on STN
AN CA63:15384h CAOLD
TI metabolism of 5-azacytidine and 5-aza-2'-deoxycytidine
AU Raska, Karel, Jr.; Jurovcik, M.; Sormova, Z.; Sorm, F.
IT 108-19-0 320-67-2 2353-33-5

L13 ANSWER 22 OF 46 CAOLD COPYRIGHT 2006 ACS on STN
AN CA63:14713f CAOLD
TI dimethylaminoethanol carbamate
AU Sceopul, Tibere N.
DT Patent
TI dimethylolbiuret
PA Stamicarbon N. V.
DT Patent
PATENT NO. KIND DATE

PI FR M3221
PI NL 295068
IT 108-19-0 3420-66-4 4220-31-9 4220-32-0

L13 ANSWER 23 OF 46 CAOLD COPYRIGHT 2006 ACS on STN
AN CA63:13627g CAOLD
TI lactate dehydrogenase isoenzymes of human semen
AU Clausen, Joergen; Oevlisen, B.
IT 108-19-0

L13 ANSWER 24 OF 46 CAOLD COPYRIGHT 2006 ACS on STN
AN CA63:13528h CAOLD
TI polyurethan films and (or) fibers
PA Farbenfabriken Bayer A.-G.
DT Patent
PATENT NO. KIND DATE

PI NL 6412962

DT	PA	AU	TI	AN	L13
BE 655445					
DE 1204406					
FR 1416009					
IT	101-68-8	104-78-9	106-59-2	108-19-0	822-06-0
	2917-98-8				
AN	CA63:11369C	CAOLD	COPYRIGHT 2006 ACS on STN		
TI	bromic acid process for the preparation of certain aliphatic N-bromo				
AU	Robertson, Dale N.				
PA	Arapahoe Chemicals, Inc.				
DT	Patent				
	PATENT NO.	KIND	DATE		
PI	US 3187044	1965			
IT	79-15-2	3699-06-7	3699-16-9	3699-17-0	3699-18-1
	3699-20-5	3699-21-6	3699-22-7	7789-31-3	31291-15-3
	89182-49-0				
L13	ANSWER 26 OF 46	CAOLD	COPYRIGHT 2006 ACS on STN		
AN	CA63:11355d	CAOLD			
TI	biuret formation from urea in closed systems				
AU	Baranski, Andrzej				
IT	64-77-7	96-31-1	108-19-0	111-36-4	3576-22-5
L13	ANSWER 27 OF 46	CAOLD	COPYRIGHT 2006 ACS on STN		
AN	CA63:8196b	CAOLD			
TI	structure of cyanoguanylurea and cyanobiguamide				
AU	Mushkin, Yu. I.; Finkel'shtein, A. I.				
IT	108-19-0	2978-34-9	2978-35-0		
L13	ANSWER 28 OF 46	CAOLD	COPYRIGHT 2006 ACS on STN		
AN	CA63:7412f	CAOLD			
TI	nutritional and chemical evaluation of urea and biuret in complete				
AU	Karr, Melvin R.; Garrigus, U. S.; Hatfield, E. E.; Norton, H. W.;				
IT	Doane, B.				
IT	108-19-0				
L13	ANSWER 29 OF 46	CAOLD	COPYRIGHT 2006 ACS on STN		
AN	CA63:2284e	CAOLD			
TI	pharmacol. data on therapeutic combination-pheneturide-biuret-				
AU	diphenylhydantoin-phenobarbital				
Vincent, Daniel					
IT	90-49-3	108-19-0			
L13	ANSWER 30 OF 46	CAOLD	COPYRIGHT 2006 ACS on STN		
AN	CA63:2150a	CAOLD			
TI	biochem. effects and metabolic transformations of 5-azacytidine in				
AU	Cihak, Alois; Sorm, F.				
IT	65-46-3	108-19-0	320-67-2	2148-08-5	
	2148-09-6	31048-72-3	31048-73-4		
L13	ANSWER 31 OF 46	CAOLD	COPYRIGHT 2006 ACS on STN		
AN	CA63:2107h	CAOLD			
TI	colorimetric determination of citrulline and urea				
AU	McLean, Patricia; Novello, F.; Gurney, M. W.				
IT	64-10-8	108-19-0	598-50-5		

L13 ANSWER 32 OF 46 CAOLD COPYRIGHT 2006 ACS on STN
 AN CA62:16069g CAOLD
 TI urea having a reduced biuret content
 PA Stamicarbon N. V.
 DT Patent

PATENT NO.	KIND	DATE
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PI FR 1387784
 BE 646334
 NL 291528

IT 108-19-0 462-88-4 2609-10-1

L13 ANSWER 33 OF 46 CAOLD COPYRIGHT 2006 ACS on STN
 AN CA62:16007c CAOLD
 TI reaction between biuret and NH3
 AU Otsuka, Eiji; Kanai, K.
 IT 108-19-0

L13 ANSWER 34 OF 46 CAOLD COPYRIGHT 2006 ACS on STN
 AN CA62:13004b CAOLD
 TI kinetics of biuret formation from urea
 AU Jager, Lubomir; Gottfried, J.; Nyvlt, J.; Sura, J.
 IT 108-19-0

L13 ANSWER 35 OF 46 CAOLD COPYRIGHT 2006 ACS on STN
 AN CA62:11690f CAOLD
 TI formaldehyde solns. (biuret-stabilized)
 PA Stamicarbon N. V.
 DT Patent

PATENT NO.	KIND	DATE
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PI FR 1383700
 BE 644768
 DE 1217354
 GB 1035123
 NL 289888

IT 108-19-0

L13 ANSWER 36 OF 46 CAOLD COPYRIGHT 2006 ACS on STN
 AN CA62:3552h CAOLD
 TI 15N magnetic resonance spectroscopy - (II) coupling consts.
 AU Binsch, Gerhard; Lambert, J. B.; Roberts, B. W.; Roberts, J. D.
 IT 108-19-0 122-66-7 1122-47-0 1449-70-3 1449-71-4
 1449-72-5 1449-73-6 1449-74-7 1449-75-8 1449-76-9 1449-77-0
 1449-78-1 1449-79-2 1449-80-5 1449-81-6 1449-82-7 1449-83-8
 1449-84-9 1755-37-9 1755-38-0 2067-80-3 2067-81-4 2724-69-8
 3762-24-1 3852-22-0 3855-61-6 3907-59-3 3907-96-8 3980-80-1
 74638-78-1

L13 ANSWER 37 OF 46 CAOLD COPYRIGHT 2006 ACS on STN
 AN CA62:3366a CAOLD
 TI biuret content of urea and plant growth
 AU Jungermann, K.
 TI phosphate effect of Mg phosphates
 AU Munk, Harald
 IT 108-19-0 7757-86-0 7785-21-9

L13 ANSWER 38 OF 46 CAOLD COPYRIGHT 2006 ACS on STN
 AN CA62:3145d CAOLD

TI excretion of biuret in the urine of sheep fed biuret

AU Gray, R. S.; Clark, R.

IT 108-19-0

L13 ANSWER 39 OF 46 CAOLD COPYRIGHT 2006 ACS on STN

AN CA62:629b CAOLD

TI perhydrides of amino acids and acid amides

AU Dirschnerl, Wilhelm; Moersler, B.

IT 124-43-6 1944-89-4 3085-93-6 3085-94-7 3085-95-8 3267-52-5

93060-83-4

L13 ANSWER 40 OF 46 CAOLD COPYRIGHT 2006 ACS on STN

AN CA61:2939b CAOLD

TI infrared spectra of amido derivs. of H2CO3 - (III) acyl isocyanates

AU Ostrogovich, George; Bacalogiu, R.; Nemes, A.

IT 3998-25-2 4378-07-8 4382-03-0 4383-82-8 4461-33-0 19617-43-7

90802-00-9 94073-04-8 96633-91-9

97194-62-2 97194-63-3 97771-74-9

L13 ANSWER 41 OF 46 CAOLD COPYRIGHT 2006 ACS on STN

AN CA61:2937g CAOLD

TI ultraviolet absorption spectra and structure of cyanamide derivs.

AU Takimoto, Masayoshi

IT 645-93-2 926-72-7 1502-46-1 1502-47-2 1934-75-4 2208-89-1

2624-17-1 3496-98-8 3576-88-3 4405-08-7 5678-96-6 19981-17-0

36452-21-8 63166-37-0 76989-89-4 89620-75-7 89712-70-9 89925-48-4

L13 ANSWER 42 OF 46 CAOLD COPYRIGHT 2006 ACS on STN

AN CA60:156b CAOLD

TI stabilization of color pictures with methylol biuret compds.

AU Saunders, David G.

PA Kodak Ltd.

DT Patent

PATENT NO. KIND DATE

GB 927022

IT 17643-49-1 43137-52-6 88497-73-8

L13 ANSWER 43 OF 46 CAOLD COPYRIGHT 2006 ACS on STN

AN CA58:10878g CAOLD

TI infrared absorption spectra and structure of biuret-H2O2 complexes

AU Aida, Koyo

IT 3267-54-7

L13 ANSWER 44 OF 46 CAOLD COPYRIGHT 2006 ACS on STN

AN CA57:13603d CAOLD

TI acyl biuret compds. in the series CnH2n+1-COCl

AU Ostrogovich, George; Catalina, E.

IT 67229-54-3 67229-56-5 94073-16-2 96633-90-8

97194-63-3 106844-79-5

L13 ANSWER 45 OF 46 CAOLD COPYRIGHT 2006 ACS on STN

AN CA56:1638e CAOLD

TI cellulose textiles, finishing of natural or synthetic

PA Phrix-Werke A.-G.

DT Patent

TI finishing of natural or synthetic cellulose textiles

AU Koenig, Josef; Kaufmann, H.

DT Patent
 PATENT NO. KIND DATE

 PI DE 1083777
 IT 43137-52-6

L13 ANSWER 46 OF 46 CAOLD COPYRIGHT 2006 ACS on STN
 AN CA55:26466a CAOLD
 TI crease-resistant finishing of cellulosic textiles
 AU Koenig, Josef
 DT Patent
 TI textiles of natural or regenerated cellulose, crease- and
 shrinkproofing of
 PA Phrix-Werke Akt.-Ges.
 DT Patent
 PATENT NO. KIND DATE

 PI DE 1079586
 IT 43137-52-6

FILE 'USPATFULL' ENTERED AT 14:57:19 ON 10 JUL 2006
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FILE COVERS 1971 TO PATENT PUBLICATION DATE: 6 Jul 2006 (20060706/PD)
 FILE LAST UPDATED: 6 Jul 2006 (20060706/ED)
 HIGHEST GRANTED PATENT NUMBER: US7073200
 HIGHEST APPLICATION PUBLICATION NUMBER: US2006150291
 CA INDEXING IS CURRENT THROUGH 6 Jul 2006 (20060706/UPCA)
 ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 6 Jul 2006 (20060706/PD)
 REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2006
 USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2006

L14 46 S L5/P
 L15 230 S L6

L17 37 S L14(L)L15

L17 ANSWER 1 OF 37 USPATFULL on STN
 ACCESSION NUMBER: 2005:268824 USPATFULL
 TITLE: Prepolymers containing silyl groups, the production
 thereof and the use of the same in polyurethane
 foams
 INVENTOR(S): Bachon, Thomas, Duesseldorf, GERMANY, FEDERAL
 REPUBLIC OF
 Kluth, Hermann, Duesseldorf, GERMANY, FEDERAL
 REPUBLIC OF
 Klein, Johann, Duesseldorf, GERMANY, FEDERAL
 REPUBLIC OF
 Kolenda, Felicitas, Monheim, GERMANY, FEDERAL
 REPUBLIC OF
 Lambertz, Jennifer, Leverkusen, GERMANY, FEDERAL
 REPUBLIC OF

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005234144	A1	20051020
APPLICATION INFO.:	US 2005-129797	A1	20050516 (11)
RELATED APPLN. INFO.:	Continuation of Ser. No. WO 2003-EP12622, filed on 12 Nov 2003, UNKNOWN		

PRIORITY INFORMATION: DE 2002-10253387 20021115
 DOCUMENT TYPE: Utility
 FILE SEGMENT: APPLICATION
 LEGAL REPRESENTATIVE: HENKEL CORPORATION, THE TRIAD, SUITE 200, 2200 RENAISSANCE BLVD., GULPH MILLS, PA, 19406, US
 NUMBER OF CLAIMS: 12
 EXEMPLARY CLAIM: 1
 LINE COUNT: 1466
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB Foaming, moisture-curing prepolymers containing at least one group of formula I: --X-A-Si(Z).sub.n(OR).sub.3-n (I), and at least one of formula II: --N(R.sup.1)--C(O)--Y--R.sup.2 (II), and adhesive or assembly foams produced therefrom.
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 2 OF 37 USPTFUL on STN
 ACCESSION NUMBER: 2005:125176 USPTFUL
 TITLE: Method for preparing hydrazodicarbonamide using biuret as starting material
 INVENTOR(S): Lee, Chun-Hyuk, Kyonggi-Do, KOREA, REPUBLIC OF
 Han, Sang-Jin, Kyonggi-Do, KOREA, REPUBLIC OF
 J & J Chemical Co., Ltd. (non-U.S. corporation)
 NUMBER KIND DATE
 US 2005107566 A1 20050519
 US 2004-15853 A1 20041217 (11)
 Continuation of Ser. No. WO 2002-KR1862, filed on 7 Oct 2002, UNKNOWN
 NUMBER DATE
 KR 2002-33814 20020617
 DOCUMENT TYPE: Utility
 FILE SEGMENT: APPLICATION
 LEGAL REPRESENTATIVE: ST. ONGE STEWARD JOHNSTON & REENS, LLC, 986 BEDFORD STREET, STAMFORD, CT, 06905-5619, US
 NUMBER OF CLAIMS: 10
 EXEMPLARY CLAIM: 1
 LINE COUNT: 469
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 AB The method for preparing hydrazodicarbonamide (HDCA) using biuret as a starting material is disclosed. The method comprises the steps of: obtaining metal monohaloburet salt by reacting a biuret with a metal hypohalogen compound, or by reacting the biuret with a halogenating agent and a base; and reacting the obtained metal monohaloburet salt with ammonia, wherein the hydrazodicarbonamide is produced in the presence of a catalyst including bromine or iodine atom and generating bromine or iodine ion during the reaction.

L17 ANSWER 3 OF 37 USPTFUL on STN
 ACCESSION NUMBER: 2004:255481 USPTFUL
 TITLE: Method and apparatus for preparing
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

10/829418

hydrazo-dicarbonamide using urea as starting material

INVENTOR(S): Lee, Chun-hyuk, Kyunggi-Do, KOREA, REPUBLIC OF
Han, Sang-Jin, Kyunggi-Do, KOREA, REPUBLIC OF

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004199012	A1	20041007
APPLICATION INFO.:	US 2004-829418	A1	20040421 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. WO 2002-KR101796, filed on 24 Oct 2002, UNKNOWN		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	ST. ONGE STEWARD JOHNSTON & REENS, LLC, 986 BEDFORD STREET, STAMFORD, CT, 06905-5619		
NUMBER OF CLAIMS:	14		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Page(s)		
LINE COUNT:	696		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to a method and apparatus for preparing hydrazodicarbonamide using urea as starting material economically and environmentally desirably. The apparatus includes a pyrolysis furnace to obtain biuret and ammonia by pyrolyzing urea; a recrystallization reactor to purify the biuret obtained from the pyrolysis furnace; a first reactor to obtain an metal monohalobiuret salt by reacting the biuret with metal hypohalogen compound or with halogen and base; a second reactor to synthesize the hydrazodicarbonamide by reacting the monohalobiuret metal salt with ammonia; and an ammonia evaporator to separate the excess ammonia from hydrazodicarbonamide and to supply the separated ammonia to an ammonia concentrator.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 4 OF 37 USPATFULL on STN

ACCESSION NUMBER: 2004:108310 USPATFULL
TITLE: Flame retardant urea-bio based urethane compositions
INVENTOR(S): Blount, David H., San Diego, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004082712	A1	20040429
APPLICATION INFO.:	US 2003-687899	A1	20031017 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2001-941402, filed on 30 Aug 2001, PENDING Continuation-in-part of Ser. No. US 2000-532646, filed on 22 Mar 2000, GRANTED, Pat. No. US 6348526 Continuation-in-part of Ser. No. US 1997-801776, filed on 14 Feb 1997, GRANTED, Pat. No. US 5788915 Continuation-in-part of Ser. No. US 1996-723779, filed on 30 Sep 1996, GRANTED, Pat. No. US 5854309 Division of Ser. No. US 1998-149847, filed on 8 Sep 1998, GRANTED, Pat. No. US 6258298		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	David H. Blount, 6728 Del Cerro Blvd., San Diego, CA, 92120		
NUMBER OF CLAIMS:	20		

Searcher : Shears 571-272-2528

EXEMPLARY CLAIM: 1

LINE COUNT: 642

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Flame retardant urethane compositions of this invention are produced by reacting a urea and/or urea condensate, a bio based compound and a polyisocyanate. The urea condensation compositions are produced by heating urea or heating urea to produce isocyanic acid and/or cyanic acid which reacts with urea to form urea condensates. The bio based compound are environmentally friendly, replaceable compound such as vegetable oils, molasses, sugar, lignin and hemi-cellulose. The urea and/or urea condensation compounds may be mixed with or reacted with carbonization auxiliaries. For example, polyurethane foams can be rendered less flammable with urea and/or urea condensation compounds and utilized as insulating and sound proofing materials.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 5 OF 37 USPTFUL on STN
 ACCESSION NUMBER: 2003:299803 USPTFUL
 TITLE: Methods of converting urea to ammonia for SCR, SNCR

INVENTOR(S):

wojichowski, David Lee, East Hampstead, NH, UNITED STATES
 and flue gas conditioning

NUMBER	KIND	DATE
US 2003211024	A1	20031113
US 2003-361911	A1	20030211

NUMBER	DATE
US 2002-379193P	20020510 (60)

PRIORITY INFORMATION:

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: DAVID WOJICHOWSKI, 22 PARTRIDGE LANE, EAST

HEMPSTEAD, NH, 03826

NUMBER OF CLAIMS: 18

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 5 Drawing Page(s)

LINE COUNT: 635

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB

This invention relates to pollution control requirements for fossil fuel burning facilities, such as power plants, incinerators and cement kilns, and more particularly, to improved methods of generating ammonia from urea. Ammonia is the critical chemical additive used to reduce the emissions of nitrogen oxides from the combustion effluent by both selective non-catalytic reduction and selective catalytic reduction techniques.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 6 OF 37 USPTFUL on STN

ACCESSION NUMBER: 2003:174259 USPTFUL

TITLE: PREPARATION OF BURET-CONTAINING POLYISOCYANATES

INVENTOR(S):

BRUCHMANN, BERND, LUDWIGSHAFEN, GERMANY, FEDERAL
 REPUBLIC OF
 WOLFF, STEFAN, LIMBURGERHOF, GERMANY, FEDERAL
 REPUBLIC OF
 HEIDER, WOLFGANG, NEUSTADT, GERMANY, FEDERAL
 REPUBLIC OF

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JAEHME, JOACHIM, BOBENHEIM-ROXHEIM, GERMANY,
FEDERAL REPUBLIC OF
LANGER, WERNER, LUDWIGSHAFEN, GERMANY, FEDERAL
REPUBLIC OF
RENZ, HANS, MECKENHEIM, GERMANY, FEDERAL REPUBLIC
OF

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003120108	A1	20030626
	US 7022874	B2	20060404
APPLICATION INFO.:	US 1997-894156	A1	19970815 (8)
	WO 1996-EP419		19960201

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1995-19505035	19950215
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C., 1940 DUKE STREET, ALEXANDRIA, VA, 22314	
NUMBER OF CLAIMS:	9	
EXEMPLARY CLAIM:	1	
LINE COUNT:	403	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process for the preparation of polyisocyanates which contain one or more biuret groups, by reacting

a) an aliphatic or cycloaliphatic isocyanate containing two or more isocyanate groups (isocyanate a) with

b) a tertiary alcohol or a mixture of water and a tertiary alcohol (biuretizing agent b)

at from 100 to 250°C., which comprises carrying out the reaction in the presence

c) of a stabilizer (c) which constitutes a catalytic amount of urea, ammonia, biuret, a urea derivative of the formula I ##STR1##

in which R.sup.1, R.sup.2, R.sup.3 and R.sup.4 are hydrogen, C.sub.1 to C.sub.10 alkyl or C.sub.5 to C.sub.10 aryl, or a carboxamide of the formula II ##STR2##

in which R.sup.5 is C.sub.1 to C.sub.12 alkyl which is unsubstituted or in which 1, 2 or 3 hydrogen atoms are replaced by a radical ##STR3##

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 7 OF 37 USPATFULL on STN

ACCESSION NUMBER: 2003:97496 USPATFULL

TITLE: Gas generant composition

INVENTOR(S): Burns, Sean P., Almont, MI, UNITED STATES
Khandhadia, Paresh S., Troy, MI, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003066584	A1	20030410
APPLICATION INFO.:	US 2002-279323	A1	20021024 (10)

Searcher : Shears 571-272-2528

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2000-544694, filed on 7 Apr 2000, GRANTED, Pat. No. US 6475312
Continuation-in-part of Ser. No. US 2000-516067, filed on 1 Mar 2000, GRANTED, Pat. No. US 6287400

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Laurence C. Begün, Dünin & Dunn, P.C., 755 West Big Beaver Road, Troy, MI, 48084

NUMBER OF CLAIMS: 7
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 5 Drawing Page(s)
LINE COUNT: 681

AB
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
Preferred gas generant compositions incorporate a combination of 5-aminotetrazole nitrate and an oxidizer. The oxidizer may be selected from a group including nonmetal and metal nitrates, nitrates, chlorates, perchlorates, and oxides. 5-aminotetrazole nitrate is characterized as an oxygen-rich fuel and is therefore considered to be a self-deflagrating fuel. To tailor the oxygen balance in certain applications, however, the use of an oxidizer is preferred. Methods of formulating the compositions are also described. These compositions are especially suitable for inflating air bags and actuating seatbelt pretensioners in passenger-restraint devices.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 8 OF 37 USPTFUL on STN

ACCESSION NUMBER: 2002:322009 USPTFUL

TITLE: Novel composition and emulsifier

INVENTOR(S): Boer, Willem George, Edenvalle, SOUTH AFRICA

NUMBER KIND DATE

US 2002182170 A1 20021205

US 6630596 B2 20031007

US 2002-87468 A1 20020301 (10)

APPLICATION INFO.: Continuation of Ser. No. WO 2000-ZA154, filed on 31 Aug 2000, UNKNOWN

NUMBER DATE

PRIORITY INFORMATION: ZA 1999-5665 19990902

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A., P.O. BOX 2938, MINNEAPOLIS, MN, 55402

NUMBER OF CLAIMS: 19

EXEMPLARY CLAIM: 1

LINE COUNT: 393

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB

The invention relates to an adduct of polyalk(en)yl succinic anhydride and a compound of formula (I): wherein R.sub.1 is

hydrogen, hydroxyl, hydrocarbyl, hydroxyhydrocarbyl, carbamyl,

1-acetyl, amino, or nitro; R.sub.2 is hydrogen, hydroxyl,

hydrocarbyl, hydroxyhydrocarbyl, carbamyl, 1-acetyl, amino, or

nitro; R.sub.3 is hydrogen or hydrocarbyl; and X is O, S or NH; or a

derivative of such an adduct. The invention also relates to an

emulsifier comprising such an adduct or derivative, and the

invention also relates to compositions including such an emulsifier.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 9 OF 37 USPATFULL on STN

ACCESSION NUMBER: 2002:308437 USPATFULL
 TITLE: Urea condensate fertilizer, fungicide and insecticide compositions
 INVENTOR(S): Blount, David H., San Diego, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002173565	A1	20021121
APPLICATION INFO.:	US 2001-941402	A1	20010830 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2000-532646, filed on 22 Mar 2000, GRANTED, Pat. No. US 6348526		
	Continuation-in-part of Ser. No. US 1997-801776, filed on 14 Feb 1997, GRANTED, Pat. No. US 5788915		
	Continuation-in-part of Ser. No. US 1996-723779, filed on 30 Sep 1996, GRANTED, Pat. No. US 5854309		
	Continuation-in-part of Ser. No. US 1998-149847, filed on 8 Sep 1998, GRANTED, Pat. No. US 6258298		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	David H. Blount, 6728 Del Cerro Blvd., San Diego, CA, 92120		
NUMBER OF CLAIMS:	20		
EXEMPLARY CLAIM:	1		
LINE COUNT:	853		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Fertilizer, fungicide and insecticide compositions are produced by the process of this invention. The partially hydrolyzed amino condensation compounds are produced by heating urea or heating urea with other nitrogen containing compounds that will condensate with or react with isocyanic acid and/or cyanic acid thereby producing an amino condensation compound which is then partially hydrolysis by reacting it with a limited amount of water. The partially hydrolyzed amino condensation compounds may be used alone or may be mixed with or reacted with salt forming compounds, aldehydes and fillers to produce a partially hydrolyzed amino condensation composition. The partially hydrolyzed amino condensation salts of phosphorus, boron or sulfur containing compounds and the partially hydrolyzed amino condensation-aldehyde resins may also be used as the insecticide, fungicide and fertilizer compound in this invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 10 OF 37 USPATFULL on STN

ACCESSION NUMBER: 2002:290440 USPATFULL
 TITLE: Method of formulating a gas generant composition
 INVENTOR(S): Burns, Sean P., Almont, MI, United States
 Khandhadia, Paresh S., Troy, MI, United States
 PATENT ASSIGNEE(S): Automotive Systems Laboratory, Inc., Farmington Hills, MI, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6475312	B1	20021105
APPLICATION INFO.:	US 2000-544694		20000407 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2000-516067, filed on 1 Mar 2000, now patented, Pat. No. US		

6287400

NUMBER DATE

US 1999-128101P 19990407 (60)
US 1999-130660P 19990423 (60)

PRIORITY INFORMATION:

DOCUMENT TYPE:

FILE SEGMENT:

LEGAL REPRESENTATIVE:

NUMBER OF CLAIMS:

EXEMPLARY CLAIM:

NUMBER OF DRAWINGS:

LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB

Preferred gas generant compositions incorporate a combination of

5-amino-1,2,4-triazole and an oxidizer. The oxidizer may be

selected from a group including nonmetal and metal nitrates,

nitrates, chlorates, perchlorates, and oxides.

5-amino-1,2,4-triazole is characterized as an oxygen-rich fuel and

is therefore considered to be a self-deflagrating fuel. To tailor

the oxygen balance in certain applications, however, the use of an

oxidizer is preferred. Methods of formulating the compositions are

also described. These compositions are especially suitable for

inflating air bags and actuating seatbelt pretensioners in

passenger-restraint devices.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB

Flame retardant polynitrogen containing salt of

boron compounds

INVENTOR(S) :

CA, United States 92120

NUMBER DATE

US 2000-692382 20001020 (9)

US 6454968 B1 20020924

PATENT INFORMATION:

RELATED APPLN. INFO.:

DOCUMENT TYPE:

FILE SEGMENT:

PRIMARY EXAMINER:

ASSISTANT EXAMINER:

NUMBER OF CLAIMS:

EXEMPLARY CLAIM:

NUMBER OF DRAWINGS:

LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB

Flammable organic material is made less flammable by incorporating a

polynitrogen containing salt of polycarbon oxyacid in or on the

material. The polynitrogen containing salt of polycarbon oxyacid is

produced by reacting a boron oxyacid or salt of boron oxyacid with a

nitrogen containing salt forming compound such as ammonia, amino

compounds and amines in water. Both the polynitrogen radical and the

boron oxyacid radical are both flame retardant agents. The

polynitrogen salt of boron oxyacids may be used to form a flame

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retardant compositions by mixing it with carbonization auxiliaries and fillers. The polyammonium alkali metal salts of polyboron oxyacids are useful as flame retardant agents and as a surfactant.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 12 OF 37 USPATFULL on STN

ACCESSION NUMBER: 2002:181326 USPATFULL
TITLE: Urea and borates for fire and termite control
INVENTOR(S): Blount, David H., 6728 Del Cerro Blvd., San Diego,
CA, United States 92120

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6423251	B1	20020723
APPLICATION INFO.:	US 2001-754579		20010105 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1998-149847, filed on 6 Sep 1998, now patented, Pat. No. US 6258298 Division of Ser. No. US 1996-723779, filed on 30 Sep 1996, now patented, Pat. No. US 5854309		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Anthony, Joseph D.		
NUMBER OF CLAIMS:	15		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	0 Drawing Figure(s); 0 Drawing Page(s)		
LINE COUNT:	1190		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Aqueous urea condensate-boron oxyacid salts composition may be utilized to fight grass, forest, building, and other flammable organic material by applying it to these flammable organic materials. The solid or aqueous urea condensate-boron oxyacid salts composition may also be incorporated into flammable materials such as solid and foam plastic and natural materials. Urea condensate-boron oxyacid salts composition may also contain carbonization auxiliaries, such as phosphorus containing compounds, metal containing compounds that will accelerate carbonization, heat reflector, surfactant and fillers. The urea condensate-boron oxyacid salts composition is produced by mixing, heating and/or reacting urea, boron oxyacids and alkali metal hydroxide or alkaline earth metal hydroxide or oxide or the boron oxyacids maybe first reacted with the alkali metal hydroxide or the alkaline earth metal oxide or hydroxide.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 13 OF 37 USPATFULL on STN

ACCESSION NUMBER: 2002:160903 USPATFULL
TITLE: Process for producing polyisocyanates containing biuret groups from (cyclo)aliphatic diisocyanates
INVENTOR(S): Bruchmann, Bernd, Freinsheim, GERMANY, FEDERAL
REPUBLIC OF
Reif, Martin, Ludwigshafen, GERMANY, FEDERAL
REPUBLIC OF
Hofscheuer, Werner, Neuhofen, GERMANY, FEDERAL
REPUBLIC OF
Jahme, Joachim, Bobenheim-Roxheim, GERMANY, FEDERAL
REPUBLIC OF
Langer, Werner, Ludwigshafen, GERMANY, FEDERAL
REPUBLIC OF

Searcher : Shears 571-272-2528

Renzi, Hans, Meckenheim, GERMANY, FEDERAL REPUBLIC OF
 Mohrhardt, Gunter, Speyer, GERMANY, FEDERAL REPUBLIC OF
 Schiessl, Michael, Hassloch, GERMANY, FEDERAL REPUBLIC OF
 BASF Aktiengesellschaft, Ludwigshafen, GERMANY, FEDERAL REPUBLIC OF (non-U.S. corporation)

NUMBER	KIND	DATE
US 6414184	B1	20020702
WO 9807771		19980226
US 1999-242288		19990210
WO 1997-EP4505		19970818
		19990210 PCT 371 date

PRIORITY INFORMATION:

DOCUMENT TYPE: Utility
 FILE SEGMENT: GRANTED
 PRIMARY EXAMINER: Gorr, Rachel
 LEGAL REPRESENTATIVE: Kell & Weinkauff
 NUMBER OF CLAIMS: 12
 EXEMPLARY CLAIM: 1
 NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)
 LINE COUNT: 375

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process for preparing biuret-functional polyisocyanates from at least one aliphatic or cycloaliphatic diisocyanate and from at least one amine or water or a mixture thereof as reactants involves mixing the reactants with one another in a mixing unit having a high shear action.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 14 OF 37 USPTFUL on STN
 ACCESSION NUMBER: 2000:164000 USPTFUL
 TITLE: Flame retardant polyisocyanate containing salt of boron compound
 INVENTOR(S): Blount, David H., 6728 Del Cerro Blvd., San Diego, CA, United States 92120

NUMBER	KIND	DATE
US 6156240		20001205
US 1997-898931		19970723
		(8)

PATENT INFORMATION:

DOCUMENT TYPE: Utility
 FILE SEGMENT: Granted
 PRIMARY EXAMINER: Warden, Jill
 ASSISTANT EXAMINER: Cross, Latoya
 NUMBER OF CLAIMS: 5
 EXEMPLARY CLAIM: 1
 LINE COUNT: 832

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Flammable organic material is made less flammable by incorporating a polyisocyanate containing salt of polyboron oxyacid in or on the material. The polyisocyanate containing salt of polyboron oxyacid is produced by reacting a boron oxyacid or salt of boron oxyacid with a

nitrogen containing salt forming compound such as ammonia, amino compounds and amines in water. Both the polynitrogen radical and the boron oxyacid radical are flame retardant agents. The polynitrogen salt of boron oxyacids may be used to form a flame retardant compositions by mixing it with carbonization auxiliaries and fillers. The polyammonium alkali metal salts of polyboron oxyacids are useful as flame retardant agents and as a surfactant.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 15 OF 37 USPATFULL on STN

ACCESSION NUMBER: 1999:155874 USPATFULL
 TITLE: Process for the production of polyisocyanates having a biuret structure
 INVENTOR(S): Woynar, Helmut, Dormagen, Germany, Federal Republic of
 Schmidt, Manfred, Dormagen, Germany, Federal Republic of
 Gronen, Jurgen, Overath, Germany, Federal Republic of
 PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Leverkusen, Germany, Federal Republic of (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5994491		19991130
APPLICATION INFO.:	US 1998-22792		19980213 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1997-19707576	19970226
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Gorr, Rachel	
LEGAL REPRESENTATIVE:	Gil, Joseph C., Cheung, Noland J.	
NUMBER OF CLAIMS:	7	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	2 Drawing Figure(s); 1 Drawing Page(s)	
LINE COUNT:	322	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process for the production of polyisocyanates having a biuret structure, comprising continuously combining organic diisocyanates having aromatically attached isocyanate groups in a mixing chamber with organic diamines having aromatically attached amino groups in a molar ratio of at least 8:1 to form a reaction mixture; and reacting said reaction mixture at a temperature of above 180° C., wherein a residence time of said reaction mixture in the mixing chamber from when said organic diisocyanates and said organic diamines are combined is at most 60 seconds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 16 OF 37 USPATFULL on STN

ACCESSION NUMBER: 1998:162571 USPATFULL
 TITLE: Flame retardant compositions utilizing amino condensation compounds
 INVENTOR(S): Blount, David H., 6728 Del Cerro Blvd., San Diego, CA, United States 92120

NUMBER	KIND	DATE
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Searcher : Shears 571-272-2528

PATENT INFORMATION: US 5854309 19981229 (8)
APPLICATION INFO.: US 1996-723779 19960930
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Hoke, Veronica P.
NUMBER OF CLAIMS: 4
EXEMPLARY CLAIM: 1
LINE COUNT: 624
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB
Flame retardant compositions such as polyurethane foams are produced by incorporating an amino condensation composition. The amino condensation compositions are produced by heating urea or heating urea with other nitrogen containing compounds that will condensate with or react with isocyanic acid and/or cyanic acid or heating urea first then reacting the condensation compounds with other nitrogen containing compounds. The amino condensation compounds may be mixed with or reacted with carbonization auxiliaries, aldehydes and fillers to produce an amino condensation composition which is incorporated in more flammable organic compositions such as polyurethanes, polyester resins, epoxy resins, vinyl resins and other resins. The amino condensation salts of phosphorus, boron or sulfur containing compounds and the amino condensation-aldehyde resins may also be used as the flame retardant compound in this invention. For example, polyurethane foams can be rendered less flammable with the amino condensation compounds or compositions and utilized as insulating materials.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 17 OF 37 USPTFULL on STN
ACCESSION NUMBER: 1998:124175 USPTFULL
TITLE: Hydrogen peroxide complexes of inorganic salts and synthesis thereof
INVENTOR(S): Chen, Xiaolan, Irvine, CA, United States
Jacobs, Paul Taylor, Trabuco Canyon, CA, United States
Lin, Szu-Min, Laguna Hills, CA, United States
Ethicon, Inc., Somerville, NJ, United States (U.S. corporation)
NUMBER KIND DATE

PATENT INFORMATION: US 5820841 19981013
APPLICATION INFO.: US 1996-716055 19960919 (8)
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Langel, Wayne
LEGAL REPRESENTATIVE: Knobbe, Martens, Olson & Bear, LLP
NUMBER OF CLAIMS: 20
EXEMPLARY CLAIM: 1,17,19,20
NUMBER OF DRAWINGS: 28 Drawing Figure(s); 20 Drawing Page(s)
LINE COUNT: 2856
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB
A method of making an inorganic salt-hydrogen peroxide complex includes the following steps: (a) mixing the inorganic salt with sufficient water for a time sufficient to form a soft paste, (b) mixing the paste with an aqueous hydrogen peroxide solution to form a hydrogen peroxide-containing paste, and (c) drying the hydrogen peroxide-containing paste. A hydrate method of making Na.sub.4

P.sub.2 O.sub.7.3H.sub.2 O.sub.2 includes the steps of: mixing sodium pyrophosphate decahydrate solid with an aqueous solution of hydrogen peroxide having a concentration of less than 30%, and drying the mixture. Compositions of matter include K.sub.2 HPO.sub.4.3H.sub.2 O.sub.2, KH.sub.2 PO.sub.4.H.sub.2 O.sub.2 Ca.sub.2 P.sub.2 O.sub.7.nH.sub.2 O.sub.2, Ca.sub.2 P.sub.2 O.sub.4.nH.sub.2 O.sub.2, Na.sub.2 SO.sub.4.nH.sub.2 O.sub.2, K.sub.2 SO.sub.4.nH.sub.2 O.sub.2, Na.sub.2 SiO.sub.3.nH.sub.2 O.sub.2 and Na.sub.2 SiO.sub.7.nH.sub.2 O.sub.2.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 18 OF 37 USPATFULL on STN

ACCESSION NUMBER: 94:108966 USPATFULL

TITLE: Particulate polymers and stabilizer compounds and polymer compositions prepared therefrom

INVENTOR(S): Harris, Robert F., Midland, MI, United States
Savina, Michael R., Ann Arbor, MI, United States
Joseph, Michael D., Midland, MI, United States

PATENT ASSIGNEE(S): The Dow Chemical Company, Midland, MI, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5373043		19941213
APPLICATION INFO.:	US 1993-109755		19930819 (8)
DISCLAIMER DATE:	20080219		
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1989-406944, filed on 13 Sep 1989, now patented, Pat. No. US 4994503		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Welsh, Maurice J.		
NUMBER OF CLAIMS:	24		
EXEMPLARY CLAIM:	1		
LINE COUNT:	2171		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to a solid particulate polymer comprising 1) a backbone containing (a) a plurality of moieties selected from the group consisting of alkylene, arylene, aralkylene, alkylarylene, cycloalkylene, alkyleneoxy, and polyalkyleneoxy; (b) a plurality of moieties selected from the group consisting of internal urea, thiourea, biuret and dithiobiuret; and 2) end groups selected from the group consisting of internal urea, thiourea, biuret and dithiobiuret. The particulate polymer dispersions can be used for preparing reinforced polymer matrices, especially where the matrix comprises urethane and/or urea linkages.

The invention allows for the preparation of a particulate polymer without using organic polyisocyanate.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 19 OF 37 USPATFULL on STN

ACCESSION NUMBER: 93:91706 USPATFULL

TITLE: Polyisocyanate mixtures, a process for their production and their use

INVENTOR(S): Reiff, Helmut, Leverkusen, Germany, Federal Republic of

PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Leverkusen, Germany,

Federal Republic of (non-U.S. corporation)

NUMBER	KIND	DATE
US 5258452		19931102
US 1992-940564		19920904 (7)

PRIORITY INFORMATION:

NUMBER	DATE
DE 1991-412953	19910910

DOCUMENT TYPE:

Utility

FILE SEGMENT:

Granted

PRIMARY EXAMINER:

Knight, III, John

ASSISTANT EXAMINER:

Johnson, Rachel

LEGAL REPRESENTATIVE:

Gil, Joseph C., Akorli, Godfried R., Whalen, Lynnette M.

NUMBER OF CLAIMS:

4

EXEMPLARY CLAIM:

1

LINE COUNT:

526

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to polyisocyanates containing tertiary nitrogen with an (average) NCO functionality of 2.3 to 4.3 which, despite the presence of tertiary nitrogen and isocyanate groups in the same molecule, would be stable in storage, could be dissolved or dispersed in water without difficulty, optionally after at least partial alkylation or protonation, and would be suitable as starting components in the production of polyurethane plastics and, above all, as crosslinking agents for water-containing binders or binder components.

INVENTOR(S):

Urea and biuret prepolymers of MDI
Slack, William E., Moundsville, WV, United States
Adkins, Rick L., New Martinsville, WV, United States

PATENT ASSIGNEE(S):

Miles Inc., Pittsburgh, PA, United States (U.S. corporation)

NUMBER	KIND	DATE
US 5212275		19930518
US 1992-957498		19921007 (7)

APPLICATION INFO.:

PATENT INFORMATION:

US 5212275

DOCUMENT TYPE:

Utility

FILE SEGMENT:

Granted

PRIMARY EXAMINER:

Welsh, Maurice J.

LEGAL REPRESENTATIVE:

Gil, Joseph C., Akorli, Godfried R.

NUMBER OF CLAIMS:

3

EXEMPLARY CLAIM:

1

LINE COUNT:

331

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed herein is a liquid isocyanate prepolymer having an isocyanate group content of from 10 to 30% by weight, prepared by reacting:

1) a polyfunctional secondary amine group containing material of the general formula: ##STR1## wherein R represents alkyl, alkenyl, cycloalkyl, aralkyl or aryl radical:

Searcher : Shears 571-272-2528

A represents an organic radical having a molecular weight between 28 and 6000 and having a functionality of m and

m represents an integer from 2 to 6;

with

ii) an isocyanate mixture comprising:

a) from 50 to 100% by weight of diphenylmethane diisocyanate of which from 2 to 50% by weight consist of 2,2'- and 2,4'-isomers; and

b) the balance being polyphenylpolymethylene polyisocyanates.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 21 OF 37 USPATFULL on STN

ACCESSION NUMBER: 92:40794 USPATFULL

TITLE: Polyalkyleneoxy polyahis containing hydrogen bonding moieties in their backbone and hydroxyalkyl carbamate end groups and a process for their preparation

INVENTOR(S): Harris, Robert F., Midland, MI, United States
Joseph, Michael D., Midland, MI, United States

PATENT ASSIGNEE(S): The Dow Chemical Company, Midland, MI, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5115070		19920519
APPLICATION INFO.:	US 1990-491376		19900309 (7)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Kight, III, John		
ASSISTANT EXAMINER:	Truong, Duc		
NUMBER OF CLAIMS:	20		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1436		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A polyahl comprising a backbone having at least one acyclic moiety selected from the group consisting of urea, biuret, thiourea, dithiobiuret, amide, and thioamide; and at least two polyalkyleneoxy moieties; and at least one terminal hydroxyalkyl carbamate group is disclosed. These polyahls may be prepared by contacting a modified polyamide compound containing in its backbone at least one acyclic moiety selected from the group consisting of urea, biuret, thiourea, dithiobiuret, amide, and thioamide wherein the amino groups are sufficiently spaced apart from each other that they do not undergo reaction with a single alkylene carbonate moiety to form a cyclic urea moiety, with a cyclic alkylene carbonate, in amounts thereof and under conditions effective to form the polyahl. Prepolymers and polymers prepared from such polyahls are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 22 OF 37 USPATFULL on STN

ACCESSION NUMBER: 92:34254 USPATFULL

TITLE: Imines and secondary amines containing hydrogen bonding moieties in their backbone and polymers

INVENTOR(S) :
 Harris, Robert F., Midland, MI, United States
 Habermann, Clarence E., Traverse City, MI, United States
 Joseph, Michael D., Midland, MI, United States
 The Dow Chemical Company, Midland, MI, United States (U.S. corporation)

NUMBER	KIND	DATE
US 5109098		19920428
US 1990-497383		19900321 (7)

DOCUMENT TYPE: Utility
 FILE SEGMENT: Granted
 PRIMARY EXAMINER: Kight, III, John
 ASSISTANT EXAMINER: Truong, Duc
 NUMBER OF CLAIMS: 33
 EXEMPLARY CLAIM: 1
 LINE COUNT: 1895

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Imine and secondary amines comprising a backbone portion containing a plurality of polyalkyleneoxy moieties and one or more internal urea, thiourea, biuret, thio biuret, amide, or thioamide moieties, and a plurality of imino or secondary amino end groups, wherein each imino or secondary amino end group is separated from a urea, thiourea, biuret, dithio biuret, amide, or thioamide moiety by at least one alkylene, cycloalkylene, aralkylene, arylene, alkyleneoxy, or polyalkyleneoxy moiety are disclosed. Prepolymers and polymers prepared from the imines and secondary amines are also disclosed. In addition, the imines and secondary amines of the invention are also useful as epoxy resin curing agents.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 23 OF 37 USPTFUL on STN

ACCESSION NUMBER: 91:82292 USPTFUL

TITLE:

Amino-functional polyesters containing urea, biuret, thiourea, dithio biuret, thioamide, and/or amide moieties in their backbone and urethane/urea prepolymers and polymers made therefrom
 Harris, Robert F., Midland, MI, United States
 Joseph, Michael D., Midland, MI, United States
 The Dow Chemical Company, Midland, MI, United States (U.S. corporation)

NUMBER	KIND	DATE
US 5055544		19911008
US 1990-485678		19900227 (7)

PATENT INFORMATION: US 5055544
 APPLICATION INFO.: US 1990-485678
 RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1988-247460, filed on 21 Sep 1988, now patented, Pat. No. US 4916201 which is a continuation-in-part of Ser. No. US 1982-99027, filed on 21 Sep 1982, now abandoned

DOCUMENT TYPE: Utility

FILE SEGMENT: Granted

PRIMARY EXAMINER: Welsh, Maurice J.

NUMBER OF CLAIMS: 11

EXEMPLARY CLAIM: 1

LINE COUNT: 2887

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to novel polymeric polyamines containing internal urea, biuret, thiourea, dithiobiuret, amide, and/or thioamide moieties, and to polymers prepared therefrom. This invention also relates to novel isocyanate-functional prepolymers containing urea, biuret, thiourea, dithiobiuret, amide, and/or thioamide moieties and to polymers prepared therefrom.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 24 OF 37 USPATFULL on STN

ACCESSION NUMBER: 90:98851 USPATFULL

TITLE: Process for the preparation of biuret polyisocyanates, the compounds obtained by this process and their use

INVENTOR(S): Pedain, Josef, Cologne, Germany, Federal Republic of
Schonfelder, Manfred, Leverkusen, Germany, Federal Republic of
Schmidt, Manfred, Dormagen, Germany, Federal Republic of

PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Leverkusen, Germany, Federal Republic of (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4980500		19901225
APPLICATION INFO.:	US 1988-281159		19881207 (7)

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1987-3742181	19871212
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Siegel, Alan	
LEGAL REPRESENTATIVE:	Gil, Joseph C., Roy, Thomas W.	
NUMBER OF CLAIMS:	12	
EXEMPLARY CLAIM:	1	
LINE COUNT:	644	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is directed to a process for the preparation of urethane-modified biuret polyisocyanates by the reaction of

(a) 1,6-diisocyanatohexane with subequivalent quantities of

(b) biuretizing agents based on water and/or organic compounds which react with isocyanate groups to form biuret groups,

to form biurets followed by removal of the unreacted, excess 1,6-diisocyanatohexane and any volatile components present, characterized in that at any stage before removal of the excess 1,6-diisocyanate,

(c) at least one diol containing ester groups and having an average molecular weight of about 350 to 950 is added to the reaction mixture in a quantity of about 1 to 50% by weight, based on the weight of the 1,6-diisocyanatohexane, the diol reacting with part of the isocyanate groups present to form urethane groups.

The invention is also directed to the urethane-modified biuret polyisocyanates obtained by this process and their use as

polyisocyanate components in two-component polyurethane lacquers.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 25 OF 37 USPATFUL on STN

ACCESSION NUMBER: 90:28012 USPATFUL

TITLE:

Amino-functional polyethers containing urea, biuret, thiourea, dithiobiuret, thioamide, and/or amide moieties in their backbone and urethane/urea prepolymer and polymers made therefrom

INVENTOR(S) :

Harris, Robert F., Midland, MI, United States
DePorter, Craig D., Blacksburg, VA, United States
The Dow Chemical Company, Midland, MI, United States (U.S. corporation)

NUMBER KIND DATE

US 4916201 19900410

US 1988-247460 19880921 (7)

Continuation-in-part of Ser. No. US 1987-99027, filed on 21 Sep 1987, now abandoned

DOCUMENT TYPE:

Utility

Granted

Welsh, Maurice J.

PRIMARY EXAMINER:

35

EXEMPLARY CLAIM:

1

2559

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB

This invention relates to novel polymeric polyamines containing internal urea, biuret, thiourea, dithiobiuret, and/or thioamide moieties, and to polymers prepared therefrom. This invention also relates to novel isocyanate-functional prepolymer containing urea, biuret, amide, thiourea, dithiobiuret, and/or thioamide moieties and to polymers prepared therefrom.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 26 OF 37 USPATFUL on STN

ACCESSION NUMBER: 87:70090 USPATFUL

TITLE:

Biuret purification

INVENTOR(S) :

Young, Donald C., Fullerton, CA, United States
Green, II, James A., Chino, CA, United States
Union Oil Company of California, Los Angeles, CA, United States (U.S. corporation)

NUMBER KIND DATE

US 4698443 19871006

US 1985-753693 19850710 (6)

DOCUMENT TYPE:

Utility

Granted

PRIMARY EXAMINER:

Warren, Charles F.

ASSISTANT EXAMINER:

Greason, Carolyn S.

LEGAL REPRESENTATIVE:

Laird, Michael H., Wirzbicki, Greg, Sandford, Dean

EXEMPLARY CLAIM:

1

LINE COUNT:

788

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Purified biuret is recovered from mixtures containing biuret and higher molecular weight urea condensation products by contacting

10/829418

melts or solutions of such mixtures with a polar adsorbent and extracting biuret from the adsorbent with a polar desorbent. The useful biuret-containing mixtures also may contain urea. These methods are capable of recovering biuret of 99.9 percent plus purity from mixture containing higher molecular weight urea condensations products such as triuret, melamine, ammelide, and others. The biuret-containing desorbent can be recycled into contact with biuret-containing adsorbents to increase its biuret concentration, concentrated by evaporation of otherwise, and/or treated to crystallize biuret. An integrated process is provided which involves pyrolyzing urea to form biuret and higher molecular weight condensation products and selectively recovering biuret from the resulting pyrolyzed urea as described.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 27 OF 37 USPATFULL on STN

ACCESSION NUMBER: 87:47063 USPATFULL

TITLE: Process for the production of polyisocyanate compositions containing urea and/or biuret groups, the polyisocyanate compositions obtained by this process, and their use for the production of plastics by the isocyanate polyaddition process

INVENTOR(S): Rasshofer, Werner, Cologne, Germany, Federal Republic of
Paul, Reiner, Muelheim-Ruhr, Germany, Federal Republic of

PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Leverkusen, Germany, Federal Republic of (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4677136		19870630
APPLICATION INFO.:	US 1986-884831		19860711 (6)

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1985-3526233	19850723
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Welsh, Maurice J.	
LEGAL REPRESENTATIVE:	Harsh, Gene, Gil, Joseph C., Roy, Thomas W.	
NUMBER OF CLAIMS:	11	
EXEMPLARY CLAIM:	1	
LINE COUNT:	838	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is directed to a process for the production of polyisocyanates containing urea and/or biuret groups by reacting organic polyisocyanates with a mixture of water, high molecular weight isocyanate reactive compounds and optionally low molecular weight isocyanate reactive compounds. The present invention is further directed to the products obtained by this process and their use for the production of polyisocyanate polyaddition productions, especially for the preparation of molded articles by the RIM process.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 28 OF 37 USPATFULL on STN

ACCESSION NUMBER: 87:22656 USPATFULL

Searcher : Shears 571-272-2528

TITLE: Biuret production by controlled pyrolysis of urea
 INVENTOR(S) : Stephan, Kurt F., Ephrata, WA, United States
 Stephan, John T., Longview, WA, United States
 Klein, Steven R., Ephrata, WA, United States
 PATENT ASSIGNEE(S) : Moorman Manufacturing Company, Quincy, IL, United States (U.S. corporation)

NUMBER
 KIND
 DATE

US 4654441 19870331
 US 1981-265550 19810520 (6)

PATENT INFORMATION: DISCLAIMER DATE: 20020910
 RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1980-178132,
 filed on 15 Aug 1980, now abandoned

DOCUMENT TYPE: Utility
 FILE SEGMENT: Granted
 PRIMARY EXAMINER: Warren, Charles F.
 LEGAL REPRESENTATIVE: Graybeal & Cullom

NUMBER OF CLAIMS: 17

EXEMPLARY CLAIM: 1
 LINE COUNT: 797

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Process for the production of technical grade biuret, readily in a form suitable for use as animal feed, by the controlled pyrolysis of urea in two stages, the first stage involving the partial pyrolysis of urea at a temperature above the melting point of urea to produce a first stage intermediate reaction product containing from about 20% to about 60% urea, and not more than about 25% cyanuric acid by weight, such reaction product being then cooled and comminuted, the comminuted product then being subjected, in solid form and in the absence of a liquid carrier, to a temperature at or slightly below the softening point of the solid particulate (suitable at a temperature of from about 100° C. to about 140° C.) with forced air circulation through the comminuted product for a sufficient time to lower its urea content by partial sublimation of the urea and partial further reaction thereof to biuret with only minimal further conversion of urea to cyanuric acid. Crystallization and cooling of the molten intermediate product resulting from the first stage of pyrolyzation is advantageously accelerated by addition thereof of a powdered seed material, preferably including powdered feed grade biuret from a previous run, which additive serves to also increase the melting point of the product and thus increase the temperature at which it may be heated during the solid state pyrolyzation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 29 OF 37 USPATFUL on STN
 ACCESSION NUMBER: 87:13411 USPATFUL
 TITLE: Biuret manufacture
 INVENTOR(S) : Green, II, James A., Chino, CA, United States
 Young, Donald C., Fullerton, CA, United States
 Union Oil Company of California, Los Angeles, CA,
 United States (U.S. corporation)

NUMBER
 KIND
 DATE

US 4645860 19870224

PATENT INFORMATION: APPLICATION INFO.: US 1985-732175 19850507 (6)
 RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1983-567271,
 Searcher : Shears 571-272-2528

10/829418

filed on 30 Dec 1983 Ser. No. Ser. No. US
1983-567099, filed on 30 Dec 1983 Ser. No. Ser. No.
US 1983-567047, filed on 30 Dec 1983 And Ser. No.
US 1985-725304, filed on 19 Apr 1985

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Warren, Charles F.
ASSISTANT EXAMINER: Greason, C.
LEGAL REPRESENTATIVE: Laird, Michael H., Wirzbicki, Gregory F., Sandford,
Dean
NUMBER OF CLAIMS: 34
EXEMPLARY CLAIM: 1
LINE COUNT: 891

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods are provided for recovering biuret from aqueous urea solutions and for producing relatively concentrated biuret-containing extracts which involve contacting a biuret-containing aqueous urea solution with the hydroxide ion form of an anion exchanger to retain at least a portion of the biuret on the exchanger, contacting the resulting biuret-containing ion exchanger with an aqueous extractant under conditions sufficient to form a biuret-containing extract, and contacting the resulting biuret-containing extract with the same or other biuret-containing anion exchanger in the same or subsequent cycles under conditions sufficient to increase the biuret concentration of the extract. The biuret-containing urea feed solution may also contain higher molecular weight urea condensation products, and the biuret can be selectively separated from such condensation products by the disclosed methods. Extracts containing about 1 weight percent biuret or more can be obtained from which biuret can be crystallized at temperatures above 0° C., and purified biuret of as much as 99.9 percent plus purity can be obtained from solutions containing higher molecular weight urea condensation products such as triuret, melamine, ammelide, and/or others. An integrated process also is provided which involves heating urea at a temperature sufficient to form biuret (in the presence or absence of higher molecular weight urea condensation products) and recovering biuret from an aqueous solution of the resulting pyrolyzed urea as described.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 30 OF 37 USPATFULL on STN

ACCESSION NUMBER: 87:13410 USPATFULL
TITLE: Methods for purifying biuret
INVENTOR(S): Green, II, James A., Chino, CA, United States
Young, Donald C., Fullerton, CA, United States
PATENT ASSIGNEE(S): Union Oil Company of California, Los Angeles, CA,
United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4645859		19870224
APPLICATION INFO.:	US 1985-725304		19850419 (6)
DISCLAIMER DATE:	20040224		
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1983-567271, filed on 30 Dec 1983 And a continuation-in-part of Ser. No. US 1983-567099, filed on 30 Dec 1983 And a continuation-in-part of Ser. No. US 1983-567047, filed on 29 Dec 1983		
DOCUMENT TYPE:	Utility		

Searcher : Shears 571-272-2528

FILE SEGMENT: Granted
 PRIMARY EXAMINER: Warren, Charles F.
 ASSISTANT EXAMINER: Flaherty, Elizabeth A.
 LEGAL REPRESENTATIVE: Laird, Michael H., Wirtzbicki, Gregory F., Sandford, Dean
 NUMBER OF CLAIMS: 31
 EXEMPLARY CLAIM: 1
 LINE COUNT: 809
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB
 Methods are provided for recovering purified biuret from aqueous solutions containing biuret and higher molecular weight urea condensations products by contacting such solutions with the hydroxide ion form of an anion exchanger and extracting biuret from the ion exchanger with an aqueous extractant. The useful biuret-containing solutions also may contain urea. These methods are capable of recovering biuret of 99.9 percent plus purity from solutions containing higher molecular weight urea condensations products such as triuret, melamine, ammeline, and others. Elevated temperatures increase biuret recovery rate and concentration, and the extractant can be recycled into contact with additional biuret-containing anion exchangers to increase biuret concentration even further. The biuret-containing extract can be employed as is, concentrated by evaporation or otherwise, or treated to crystallize biuret. An integrated process is provided which involves pyrolyzing urea to form biuret and higher molecular weight condensation products and selectively recovering biuret from an aqueous solution of the resulting pyrolyzed urea as described.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 31 OF 37 USPTFULL on STN
 ACCESSION NUMBER: 86:59466 USPTFULL
 TITLE: Process for the preparation of aromatic polyisocyanates containing urea and/or biuret groups
 INVENTOR(S) : Scholl, Hans-Joachim, Cologne, Germany, Federal Republic of
 Hettel, Hans, Cologne, Germany, Federal Republic of
 Bayer Aktiengesellschaft, Leverkusen, Germany,
 Federal Republic of (non-U.S. corporation)
 PATENT ASSIGNEE(S) :

PATENT INFORMATION:	US 4618706	19861021	US 1982-364945	19820402	(6)
APPLICATION INFO.:					

PRIORITY INFORMATION:	DE 1981-3114638	19810410
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Torrence, Dolph H.	
LEGAL REPRESENTATIVE:	Harsh, Gene, Gil, Joseph C., Roy, Thomas W.	
NUMBER OF CLAIMS:	4	
EXEMPLARY CLAIM:	1	
LINE COUNT:	553	

AB
 This invention relates to a process for the preparation of aromatic polyisocyanates containing urea and/or biuret groups, optionally in the form of a mixture of homologues and/or isomers, by the reaction

of aromatic diisocyanates with diamines having primary or secondary amino groups at about 20° to 180° C., and at an equivalent ratio of isocyanate groups to amino groups in the range of 5:1 to 100:1, at least 25 mol percent of the diisocyanates put into the process and/or at least 25 mol percent of the diamines put into the process being alkyl-phenylene diisocyanates or, respectively, alkyl-phenylene diamines, in which the alkyl substituents have 6 to 18 carbon atoms, and the use of the products of the process, optionally as solutions in excess starting diisocyanate, as isocyanate components in the production of polyurethanes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 32 OF 37 USPATFULL on STN

ACCESSION NUMBER: 86:11588 USPATFULL

TITLE: Process for the preparation of urea and its derivatives from CO, NO, and a hydrogen source

INVENTOR(S): Radel, Robert J., Florence, AL, United States
Kim, Yong K., Florence, AL, United States

PATENT ASSIGNEE(S): Tennessee Valley Authority, Muscle Shoals, AL,
United States (U.S. government)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 38		19860304
APPLICATION INFO.:	US 1985-754555		19850715 (6)
DOCUMENT TYPE:	Statutory		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Terapane, John F.		
ASSISTANT EXAMINER:	Locker, Howard J.		
LEGAL REPRESENTATIVE:	Petrusek, Robert A.		
NUMBER OF CLAIMS:	9		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 1 Drawing Page(s)		
LINE COUNT:	394		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process for the preparation of urea and its derivatives by reacting CO, NO, and a hydrogen source over a supported noble metal catalyst at atmospheric pressure is described. Preferably, stoichiometric amounts of reactory gases are used. Reaction temperatures are in the range of 75° C. to 225° C.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 33 OF 37 USPATFULL on STN

ACCESSION NUMBER: 85:53914 USPATFULL

TITLE: Production of animal feed grade biuret

INVENTOR(S): Stephan, Kurt F., Wenatchee, WA, United States
Stephan, John T., East Wenatchee, WA, United States

PATENT ASSIGNEE(S): Moorman Manufacturing Company, Quincy, IL, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4540820		19850910
APPLICATION INFO.:	US 1983-455326		19830103 (6)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1981-265550, filed on 20 May 1981 which is a continuation-in-part of Ser. No. US 1980-178132,		

filed on 15 Aug 1980, now abandoned

Utility

Granted

Warren, Charles F.

Picard, Robert A.

Graybeal & Cullom

8

EXEMPLARY CLAIM:

611

LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB

Preparation of a composition particularly suitable for use as feedstock in the production of animal feed grade biuret by solid state pyrolyzation thereof in a recirculating oven, which composition comprises from about 37% to about 25% urea, from about 45% to about 60% biuret, and from about 3% to about 20% cyanuric acid, by weight, such preparation involving sparging air or other non-reactive gas through a urea charge at a temperature of from about 145° C. to about 165° C. and at a rate of between about two to about ten cu. ft. of gas/hr/lb of urea for a period of at least four hours, then cooling and comminuting the product.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 34 OF 37 USPATFUL on STN

ACCESSION NUMBER:

83:22548 USPATFUL

TITLE:

Method for the reprocessing of condensate from urea production plants

INVENTOR(S):

Huber, Adalbert, Holzwickede, Germany, Federal

Republic of

Schirmer, Dietrich, Iserlohn-Hennen, Germany,

Federal Republic of

Hofmann, Heiko, Bergisch-Gladbach, Germany,

Federal Republic of

PATENT ASSIGNEE(S): UHDE GmbH, Dortmund, Germany, Federal Republic of

(non-U.S. corporation)

NUMBER KIND DATE

US 4387029

US 1981-325129

19830607

PATENT INFORMATION:

APPLICATION INFO.:

US 1981-325129

NUMBER

DATE

PRIORITY INFORMATION:

DE 1980-3044602

19801127

DOCUMENT TYPE:

Utility

FILE SEGMENT:

Granted

PRIMARY EXAMINER:

Cintins, Ivars C.

ASSISTANT EXAMINER:

Millaud, Wanda L.

LEGAL REPRESENTATIVE:

Wilson, Fraser, Barker & Clemens

NUMBER OF CLAIMS:

1

EXEMPLARY CLAIM:

1

LINE COUNT:

135

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB

An improvement in a method for the reprocessing, by oxidation, of condensate obtained in urea production plants and having a urea content of approximately 50 mg/l and a biuret content of approximately 2 mg/l, is disclosed. The improvement comprises performing the oxidation at elevated temperatures and at alkaline pH values; preferably, the oxidation is performed at a temperature

10/829418

Searcher : Shears 571-272-2528

10/829418

PRIMARY EXAMINER: Demers, Arthur P.
LEGAL REPRESENTATIVE: Street, Gary D., Lee, Walter J.
NUMBER OF CLAIMS: 4
EXEMPLARY CLAIM: 1
LINE COUNT: 307

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Urea is pyrolyzed in a falling film reactor at a temperature of from about 180° to about 240°C. A short residence time in the reactor provides for good urea conversion with minimal formation of other autocondensation pyrolyzates.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 37 OF 37 USPATFULL on STN

ACCESSION NUMBER: 75:70324 USPATFULL
TITLE: Process for preparation of urea autocondensation product
INVENTOR(S): Beale, Jr., Alvin F., Lake Jackson, TX, United States
Lee, John M., Lake Jackson, TX, United States
PATENT ASSIGNEE(S): The Dow Chemical Company, Midland, MI, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 3928438		19751223
APPLICATION INFO.:	US 1972-242221		19720407 (5)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1969-865208, filed on 9 Oct 1969, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Thomas, Jr., James O.		
ASSISTANT EXAMINER:	Breitenstein, G.		
LEGAL REPRESENTATIVE:	Street, Gary D., Lee, Walter J.		
NUMBER OF CLAIMS:	5		
EXEMPLARY CLAIM:	1		
LINE COUNT:	327		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Urea is pyrolyzed under controlled temperature conditions of from about 110° to about 210°C. in the presence of a polyether carrier liquid to provide an autocondensation product mass rich in biuret and having a low residual content of unconverted urea. Other autocondensation pyrolyzates, less desired in the product when it is used as a protein supplement for ruminant feeds, are co-produced only in low tolerable amounts.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

FILE 'MEDLINE' ENTERED AT 14:58:31 ON 10 JUL 2006

FILE 'BIOSIS' ENTERED AT 14:58:31 ON 10 JUL 2006
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FILE 'EMBASE' ENTERED AT 14:58:31 ON 10 JUL 2006
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L22 62 S L20 AND (L21 OR AMMONI## OR NH#)
L23 1 S L22 AND PYROLY?
L24 10 S L22 AND (REACT? OR RXN)
L25 10 S L23 OR L24

Searcher : Shears 571-272-2528

greater than 60° C. and a pH value greater than 8.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 35 OF 37 USPATFUL on STN

ACCESSION NUMBER: 77:57382 USPATFUL

TITLE:

Process for preparation of urea autocondensation

product

INVENTOR(S):

Lee, John M., Lake Jackson, TX, United States

PATENT ASSIGNEE(S):

The Dow Chemical Company, Midland, MI, United States (U.S. corporation)

NUMBER KIND DATE

US 4055598 19771025

US 1975-568095 19750414 (5)

Continuation-in-part of Ser. No. US 1972-242220,

filed on 7 Apr 1972, now abandoned which is a

continuation-in-part of Ser. No. US 1969-865211,

filed on 9 Oct 1969, now abandoned

DOCUMENT TYPE:

Utility

FILE SEGMENT:

Granted

PRIMARY EXAMINER:

Wymann, Daniel E.

ASSISTANT EXAMINER:

Waltz, Thomas A.

LEGAL REPRESENTATIVE:

Lee, Walter J.

NUMBER OF CLAIMS:

5

EXEMPLARY CLAIM:

1

LINE COUNT:

786

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB

A urea-containing reactant is pyrolyzed under controlled temperature

conditions of from about 100° to about 150° C. in the

presence of an inert hydrocarbon carrier liquid having a boiling

point at about the predetermined reaction temperature thereby

providing an autocondensation product mass rich in biuret and having

a relatively low residual content of unconverted urea. Other

autocondensation pyrolyzates, less desired in the product when it is

used as a protein supplement for ruminant feeds, are coproduced only

in relatively low tolerable amounts.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 36 OF 37 USPATFUL on STN

ACCESSION NUMBER: 76:15868 USPATFUL

TITLE:

Process for preparation of urea autocondensation

product

INVENTOR(S):

Cook, Jr., William H., Lake Jackson, TX, United States

PATENT ASSIGNEE(S):

The Dow Chemical Company, Midland, MI, United States (U.S. corporation)

NUMBER KIND DATE

US 3946073 19760323

US 1974-530337 19741209 (5)

Continuation-in-part of Ser. No. US 1973-427594,

filed on 26 Dec 1973, now abandoned which is a

continuation of Ser. No. US 1969-865209, filed on 9

DOCUMENT TYPE:

Utility

FILE SEGMENT:

Granted

10/829418

PRIMARY EXAMINER: Demers, Arthur P.
LEGAL REPRESENTATIVE: Street, Gary D., Lee, Walter J.
NUMBER OF CLAIMS: 4
EXEMPLARY CLAIM: 1
LINE COUNT: 307

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Urea is pyrolyzed in a falling film reactor at a temperature of from about 180° to about 240°C. A short residence time in the reactor provides for good urea conversion with minimal formation of other autocondensation pyrolyzates.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 37 OF 37 USPATFULL on STN

ACCESSION NUMBER: 75:70324 USPATFULL
TITLE: Process for preparation of urea autocondensation product
INVENTOR(S): Beale, Jr., Alvin F., Lake Jackson, TX, United States
Lee, John M., Lake Jackson, TX, United States
PATENT ASSIGNEE(S): The Dow Chemical Company, Midland, MI, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 3928438		19751223
APPLICATION INFO.:	US 1972-242221		19720407 (5)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1969-865208, filed on 9 Oct 1969, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Thomas, Jr., James O.		
ASSISTANT EXAMINER:	Breitenstein, G.		
LEGAL REPRESENTATIVE:	Street, Gary D., Lee, Walter J.		
NUMBER OF CLAIMS:	5		
EXEMPLARY CLAIM:	1		
LINE COUNT:	327		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Urea is pyrolyzed under controlled temperature conditions of from about 110° to about 210°C. in the presence of a polyether carrier liquid to provide an autocondensation product mass rich in biuret and having a low residual content of unconverted urea. Other autocondensation pyrolyzates, less desired in the product when it is used as a protein supplement for ruminant feeds, are co-produced only in low tolerable amounts.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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L18 597 SEA ABB=ON PLU=ON L5
L19 559 SEA ABB=ON PLU=ON L6
L20 559 SEA ABB=ON PLU=ON L18 AND L19

Searcher : Shears 571-272-2528

FILE 'REGISTRY' ENTERED AT 14:59:31 ON 10 JUL 2006
E AMMONIA/CN
8 SEA ABB=ON PLU=ON (AMMONIA/CN OR "AMMONIA (15NH3)"/CN OR
"AMMONIA (ND2T)"/CN OR "AMMONIA (ND3)"/CN OR "AMMONIA
(NDT2)"/CN OR "AMMONIA (NH2D)"/CN OR "AMMONIA (NH31+)"/CN
OR "AMMONIA (T315N)"/CN)

FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 14:58:31 ON 10 JUL 2006

L22 62 S L20 AND (L21 OR AMMONI## OR NH#)

L23 1 S L22 AND PYROLY?

L24 10 S L22 AND (REACT? OR RXN)

L25 10 S L23 OR L24

L26 9 DUP REM L25 (1 DUPLICATE REMOVED)

L26 ANSWER 1 OF 9 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2006197239 EMBASE

TITLE:

Purification and characterization of TrzF: Bisuret
hydrolysis by allophanate hydrolase supports growth.

AUTHOR:

Shapir N.; Cheng G.; Sadowsky M.J.; Wackett L.P.
L.P. Wackett, Department of Biochemistry, Molecular
Biology and Biophysics, 140 Gortner Lab., University of

CORPORATE SOURCE:

Minnesota, 1479 Gortner Ave., St. Paul, MN 55108,
United States. wacke003@umn.edu

SOURCE:

Applied and Environmental Microbiology, (2006) Vol. 72,
No. 4, pp. 2491-2495.

Refs: 32

ISSN: 0099-2240 CODEN: AEMIDF

COUNTRY: United States

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 004 Microbiology

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE:

Entered STN: 23 May 2006

Last updated on STN: 23 May 2006

AB

TrzF, the allophanate hydrolase from Enterobacter cloacae strain 99,
was cloned, overexpressed in the presence of a chaperone protein, and
purified to homogeneity. Native TrzF had a subunit molecular weight
of 65,401 and a subunit stoichiometry of $\alpha(2)$ and did not
contain significant levels of metals. TrzF showed time-dependent
inhibition by phenyl phosphorodiamidate and is a member of the amidase
signature protein family. TrzF was highly active in the hydrolysis of
allophanate but was not active with urea, despite having been
previously considered a urea amidolyase. TrzF showed lower activity
with malonamide, malonamide, and biuret. The allophanate hydrolase
from Pseudomonas sp. strain ADP, AtzF, was also shown to hydrolyze
biuret slowly. Since biuret and allophanate are consecutive
metabolites in cyanuric acid metabolism, the low level of biuret
hydrolyase activity can have physiological significance. A recombinant
Escherichia coli strain containing atzD, encoding cyanuric acid
hydrolase that produces biuret, and atzF grew slowly on cyanuric acid
as a source of nitrogen. The amount of growth produced was consistent
with the liberation of 3 mol of ammonia from cyanuric acid.
In vitro, TrzF was shown to hydrolyze biuret to liberate 3 mol of
ammonia. The biuret hydrolyzing activity of TrzF might also
be physiologically relevant in native strains. E. cloacae strain 99
grows on cyanuric acid with a significant accumulation of biuret.
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L26 ANSWER 2 OF 9 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2006285956 EMBASE
 TITLE: Isolation and physicochemical characterization of a phytolectin from *Pisum sativum* L. var Sikha.
 AUTHOR: Lal R.B.; Saxena K.D.
 CORPORATE SOURCE: R.B. Lal, Environmental Engineering and Management Programme, Department of Civil Engineering, Indian Institute of Technology, Kanpur, India.
 SOURCE: rblal@iitk.ac.in
 Asian Journal of Microbiology, Biotechnology and Environmental Sciences, (2006) Vol. 8, No. 1, pp. 51-55.
 Refs: 12
 ISSN: 0972-3005 CODEN: AJMBAQ
 COUNTRY: India
 DOCUMENT TYPE: Journal; Article
 FILE SEGMENT: 025 Hematology
 029 Clinical Biochemistry
 LANGUAGE: English
 SUMMARY LANGUAGE: English
 ENTRY DATE: Entered STN: 28 Jun 2006
 Last Updated on STN: 28 Jun 2006

AB A phytolectin was isolated from the seeds of *Pisum sativum* by ammonium sulphate precipitation at 70% saturation which are dialyzed and purified against distilled water. The heterogeneity of lectin studied by polyacrylamide gel electrophoresis at pH 8.2 and 9.2 and was separated in two fractions. The PSL strongly agglutinate blood group A & B, weakly agglutinate AB and not with O blood group. Hem-agglutination activity was inhibited by mannose and glucose even in very low concentration, indicating that they possess at least two binding sites. The solubility of PSL revealed that the fraction was soluble in presence of 0.6 M perchloric acid, Na(2)HPO(4) but insoluble in 20% trichloroacetic acid, 5% phosphotungstic acid, saturated NaH(2)PO(4) solution. The lectin gave positive molish test, Bial's orcinol, xanthophoretic, biuret and millions reaction. PSL does not detectable amount of sulphur amino acids but are rich in aspartic acid and threonine. The quantitative carbohydrate analysis showed, PSL contained less than 0.5% carbohydrate and chromatographic analysis reveals that glucose is the main sugar and xylose in traces. Mn and Ca were found to 0.12% and 0.19% respectively and trace amount of iron. The agglutination activity depends on the pH, more acidic or basic pH decreases the activity and stability, it was maximum between pH 6.2 to 9.1 for PSL. The hem-agglutination activity of PSL is also dependent to the temperature and it was maximum between 20°C to 30°C and almost zero at 70°C and above temperature. .COPYRGT. Global Science Publications.

L26 ANSWER 3 OF 9 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 1

ACCESSION NUMBER: 2005:348440 BIOSIS
 DOCUMENT NUMBER: PREV200510138481
 TITLE: Purification and characterization of allophanate hydrolase (AtzF) from *Pseudomonas* sp strain ADP.
 AUTHOR(S): Shapir, Nir; Sadowsky, Michael J.; Wackett, Lawrence P.
 [Reprint Author]
 CORPORATE SOURCE: Univ Minnesota, Dept Biochem Mol Biol and Biophys, 1479 Gortner Ave, St Paul, MN 55108 USA
 wackett@cbs.umn.edu

SOURCE: Journal of Bacteriology, (JUN 2005) Vol. 187, No. 11, pp. 3731-3738.

CODEN: JOBAAY. ISSN: 0021-9193.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 8 Sep 2005

Last Updated on STN: 8 Sep 2005

AB Atzf, alliphane hydrolase, is a recently discovered member of the amidase signature family that catalyzes the terminal reaction during metabolism of s-triazine ring compounds by bacteria. In the present study, the atzf gene from *Pseudomonas* sp. strain ADP was cloned and expressed as a His-tagged protein, and the protein was purified and characterized. atzf had a deduced subunit molecular mass of 66,223, based on the gene sequence, and an estimated holoenzyme molecular mass of 260,000. The active protein did not contain detectable metals or organic cofactors. Purified Atzf hydrolyzed alliphane with a $k(\text{cat})/\text{K-m}$ of 1.1×10^4 s⁻¹ M⁻¹, and 2 mol of ammonium was released per mol alliphane. The substrate range of Atzf was very narrow. Urea, biuret, hydroxynurea, methylcarbamate, and other structurally analogous compounds were not substrates for Atzf. Only malonamide, which strongly inhibited alliphane hydrolysis, was an alternative substrate, with a greatly reduced $k(\text{cat})/\text{K-m}$ of $21 \text{ s}^{-1} \text{ M}^{-1}$. Data suggested that the Atzf catalytic cycle proceeds through a covalent substrate-enzyme intermediate. Atzf reacts with malonamide and hydroxylamine to generate malonohydroxamate, potentially derived from hydroxylamine capture of an enzyme-tethered acyl group. Three putative catalytically important residues, one lysine and two serines, were altered by site-directed mutagenesis, each with complete loss of enzyme activity. The identity of a putative serine nucleophile was probed using phenyl phosphorodiamidate that was shown to be a time-dependent inhibitor of Atzf. Inhibition was due to phosphoramidation of Ser189 as shown by liquid chromatography/matrix-assisted laser desorption ionization mass spectrometry. The modified residue corresponds in sequence alignments to the nucleophilic serine previously identified in other members of the amidase signature family. Thus, Atzf affects the cleavage of three carbon-to-nitrogen bonds via a mechanism similar to that of enzymes catalyzing single-bond cleavage reactions. Atzf orthologs appear to be widespread among bacteria.

L26 ANSWER 4 OF 9 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2006034824 EMBASE

TITLE: Ring-cleaving cyanuric acid amidohydrolase activity in

AUTHOR: Stampfer D.M.; Krzycki J.A.; Nicomrat D.; Trajna S.J.; O.H. Tuovinen, Department of Microbiology, Ohio State University, 484 W. 12th Avenue, Columbus, OH 43210, United States. tuovinen.1@osu.edu

SOURCE: Biotransformation, (2005) Vol. 23, No. 6, pp. 387-396. Refs: 17

ISSN: 1024-2422 CODEN: BOBOEQ

PUBLISHER IDENT.: M8383065798300

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 004 Microbiology

LANGUAGE: English

SUMMARY LANGUAGE: English

Searcher : Shears 571-272-2528

ENTRY DATE: Entered STN: 2 Feb 2006

Last Updated on STN: 2 Feb 2006

AB The purpose of this study was to characterize the cyanuric acid amidohydrolase **reaction** in *Ralstonia basilensis* M91-3, an atrazine-mineralizing soil bacterium. This ring fission **reaction** is the last aromatic step in the degradative pathway of atrazine and other s-triazines. The products and molar stoichiometry of the cyanuric acid amidohydrolase **reaction** were one mol biuret (H(2) N.ovrhdot.CO.ovrhdot.NH .ovrhdot.CO.ovrhdot.NH(2)) and one mol CO(2) per mol cyanuric acid hydrolyzed, as confirmed by (13)C-NMR and gas chromatography. The optimum pH and temperature, substrate specificity, and kinetic parameters were also characterized for the purified enzyme. The native enzyme had two forms of different sizes, 204 kDa and 160 kDa. Each was a tetramer or pentamer of 44 kDa and 33 kDa, respectively. .COPYRGT. 2005 Taylor & Francis.

L26 ANSWER 5 OF 9 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2005:104161 BIOSIS

DOCUMENT NUMBER: PREV200500105419

TITLE: Solid state **reactions** of potato starch with urea and biuret.

AUTHOR(S): Siemion, Przemyslaw; Jablonska, Jolanta; Kapusniak, Janusz; Koziol, Jacek J. [Reprint Author]

CORPORATE SOURCE: Inst Chem and Environm Protect, Pedagog Univ, Armii Krajowej Ave 13-15, PL-42201, Czestochowa, Poland
j.koziol@wsp.czyst.plSOURCE: Journal of Polymers and the Environment, (October 2004)
Vol. 12, No. 4, pp. 247-255. print.
ISSN: 1566-2543 (ISSN print).

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 16 Mar 2005

Last Updated on STN: 16 Mar 2005

AB **Reaction** of granular potato starch with urea and biuret resulted in the formation of products, which were soluble neither in cold nor boiling water. The net **reaction** was a monosubstitution of the hydrogen atom in one hydroxyl group in each D-glucose unit of starch with the either CO-NH₂ or CO-NH-CO-NH₂ moiety, respectively. Properties of the products, particularly these with urea, depended on the mode of **reaction**. **Reactions** were carried out in the microwave oven as well as with convection heating. The products retained the granular form of starch but a vast majority of granules were damaged. alpha-Amylolysis of those materials revealed that their susceptibility to the enzyme increasing in the order: starch starch **reacted** with biuret starch **reacted** with urea. This order seems to reflect degree of the damage of starch granules. Susceptibility to alpha-amylolysis with simultaneous insolubility in water make these products suitable as ruminant fodder and, eventually, biodegradable material.

L26 ANSWER 6 OF 9 MEDLINE on STN

ACCESSION NUMBER: 86050491 MEDLINE

DOCUMENT NUMBER: PubMed ID: 3904735

TITLE: Ring cleavage and degradative pathway of cyanuric acid in bacteria.

AUTHOR: Cook A M; Beilstein P; Grossenbacher H; Hutter R

SOURCE: The Biochemical journal, (1985 Oct 1) Vol. 231, No. 1,

pp. 25-30.

Journal code: 2984726R. ISSN: 0264-6021.

ENGLAND: United Kingdom

Journal; Article; (JOURNAL ARTICLE)

English

Priority Journals

198512

Entered STN: 21 Mar 1990

Last Updated on STN: 21 Mar 1990

Entered Medline: 4 Dec 1985

AB

The degradative pathway of cyanuric acid [1,3,5-triazine-2,4,6-(1H,3H,5H)-trione] was examined in *Pseudomonas* sp. strain D. The bacterium grew with cyanuric acid, biuret, urea or NH_4^+ as sole source of nitrogen, and each substrate was entirely metabolized concomitantly with growth. Enzymes from strain D were separated by chromatography on DEAE-cellulose and three reactions were examined. Cyanuric acid (1 mol) was converted stoichiometrically into 1.0 mol of CO_2 and 1.1 mol of biuret, which was conclusively identified. Biuret (1 mol) was converted stoichiometrically into 1.1 mol of NH_4^+ , about 1 mol of CO_2 and 1.0 mol of urea, which was conclusively identified. Urea (1 mol) was converted into 1.9 mol of NH_4^+ and 1.0 mol of CO_2 . The reactions proceeded under aerobic or anoxic conditions and were presumed to be hydrolytic. Data indicate that the same pathway occurred in another *Pseudomonas* and a strain of *Klebsiella pneumoniae*.

L26 ANSWER 7 OF 9 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 1979:145474 BIOSIS

DOCUMENT NUMBER: PREV197967025474; BA67:25474

TITLE: PYROLYSIS OF UREA PHOSPHATE.

AUTHOR(S): MCCULLOUGH J F [Reprint author]; SHERIDAN R C; FREDERIC L L

CORPORATE SOURCE: DIV CHEM DEV, NATL FERT DEV CENT, TENN VAL AUTH, MUSCLE SHOALS, ALA 35660, USA

SOURCE: Journal of Agricultural and Food Chemistry, (1978) Vol. 26, No. 3, pp. 670-675.

CODEN: JAFCAU. ISSN: 0021-8561.

DOCUMENT TYPE: Article

FILE SEGMENT: BA

LANGUAGE: ENGLISH

AB

The pyrolysis of urea phosphate, $\text{CO}(\text{NH}_2)$

($2\cdot\text{H}_3\text{PO}_4$, was studied in the laboratory at temperatures up to 200°C . Rate of pyrolysis was relatively slow below 126°C , but at that temperature a rapid, exothermic reaction began and continued until the pyrolyzate

was saturated with ammonia. Then the reaction became endothermic and relatively slow. The reaction

products contained ammonia ortho- and polyphosphates, urea and small amounts of biuret. The distribution of phosphate species and composition of the pyrolyzates are described in terms of the average chain length. A general equation was developed for the

stoichiometry of the pyrolysis of urea phosphate or mixtures of urea phosphate with ammonia orthophosphate, ammonia, or urea. [This is a potential solution to the problem of impurities in ammonia polyphosphate liquid fertilizers].

L26 ANSWER 8 OF 9 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 1979:167399 BIOSIS

Searcher : Shears 571-272-2528

DOCUMENT NUMBER: PREV197967047399; BA67:47399
TITLE: THE RADIATION CHEMISTRY OF AQUEOUS SOLUTIONS OF CYANAMIDE.
AUTHOR(S): DRAGANIC Z D [Reprint author]; DRAGANIC I G; JOVANOVIĆ S V
CORPORATE SOURCE: BORIS KIDRIC INST NUCL SCI, PO BOX 522, 11001 BEOGRAD, YUGOSL
SOURCE: Radiation Research, (1978) Vol. 75, No. 3, pp. 508-518. CODEN: RAREAE. ISSN: 0033-7587.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH

AB O₂-free aqueous solutions of 0.1 M NH₂CN (pH 2.4 and 5) were irradiated with γ rays (0.01-25 Mrad). The rate constants determined in competition experiments are: $k(H + NH_2CN) = 6.7 + 106 \text{ M}^{-1} \text{ s}^{-1}$, $k(eaq^- [\text{hydrated electron}] + NH_2CN) = 1.5 + 109 \text{ M}^{-1} \text{ s}^{-1}$ and $k(OH + NH_2CN) = 8.5 + 106 \text{ M}^{-1} \text{ s}^{-1}$. Radiation-chemical yields were determined for the decomposition of cyanamide molecules and the formation of several radiolytic products. The following compounds were identified in irradiated solutions: H₂, CO₂, NH₃, urea, biuret, arginine and a -N=N- molecule assigned to methylaminoazoformamide. Possible reactions of secondary free radicals leading to the formation of radiolytic products were considered by taking into account the model of water radiolysis and the measured RA-radiation yields. [The radiation chemistry of simple nitriles such as cyanamide may be important in understanding the role of ionization radiation as an energy source for prebiotic molecular evolution.].

L26 ANSWER 9 OF 9 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 1976:195388 BIOSIS
DOCUMENT NUMBER: PREV197662025388; BA62:25388
TITLE: THE RADIATION CHEMISTRY OF AQUEOUS SOLUTIONS OF ACETONITRILE AND PROPIONITRILE IN THE MEGARAD DOSE RANGE.
AUTHOR(S): DRAGANIC I G; DRAGANIC Z D; SHUSHTARIAN M J
SOURCE: Radiation Research, (1976) Vol. 66, No. 1, pp. 54-65. CODEN: RAREAE. ISSN: 0033-7587.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: Unavailable

AB The radiolytic behavior of dilute, neutral, O₂-free aqueous solutions of CH₃CN and C₂H₅CN was studied. Small-molecular products were identified as RCHO, NH₃, CO₂ and H₂. The decomposition of nitrile is followed by high yields of formation of the nonvolatile N-containing compounds, G(N). The irradiated solutions exhibit a positive biuret reaction. Several amino acids were identified among radiolytic products, and glycine and alanine were the most abundant for CH₃CN and C₂H₅CN, respectively. Their yields increased after strong acid hydrolysis of the irradiated samples. The free radicals formed by reactions of RCN with H, OH and eaq⁻ were important for the phenomena observed. The positive biuret reaction, IR spectra and the release of amino acids on acid hydrolysis may provide some evidence on the formation of peptidic materials and might be of interest for the evaluation of the possible role of ionizing radiation in prebiotic chemical evolution in aqueous media.

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FILE CONTENT:1840 - 9 JUL 2006 VOL 145 ISS 2

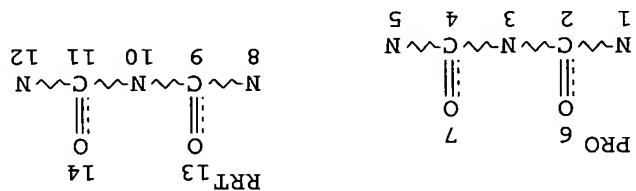
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* CASREACT now has more than 10 million reactions
*

Some CASREACT records are derived from the ZIC/VINITI database (1974-1991) provided by Infochem, INPI data prior to 1986, and Biotransformations database compiled under the direction of Professor Dr. Klaus Kieselich.

This file contains CAS Registry Numbers for easy and accurate substance identification.

L27 STR



NODE ATTRIBUTES:
CONNECT IS E1 RC AT 1
CONNECT IS X3 RC AT 3
CONNECT IS E1 RC AT 8
CONNECT IS X2 RC AT 10
CONNECT IS E1 RC AT 12
DEFAULT MLEVEL IS ATOM
DEFAULT ECLLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE
L29 12 SEA FILE=CASREACT SSS FUL L27 (47 REACTIONS)

100.0% DONE 149 VERIFIED 47 HIT RXNS 12 DOCS
SEARCH TIME: 00.00.01

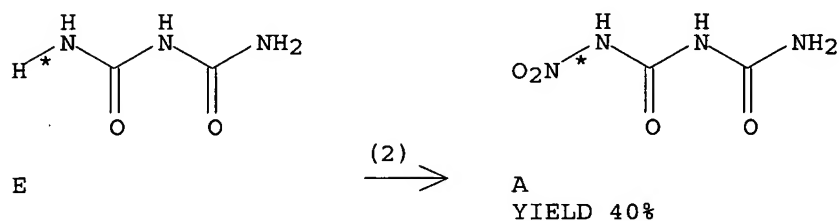
L29 ANSWER 1 OF 12 CASREACT COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 141:206802 CASREACT
TITLE: The CA.M lattice revisited. Gel formation from a

linear bis-isocyanuric acid and
2-amino-4,6-bis-(4-tert-butylphenylamino)-1,3,5-
triazine

Searcher : Shears 571-272-2528

AUTHOR(S): Plater, M. John; Sinclair, James P.; Aiken, Stuart; Gelbrich, Thomas; Hursthouse, Michael B.
 CORPORATE SOURCE: Department of Chemistry, University of Aberdeen, Aberdeen, AB24 3UE, UK
 SOURCE: Tetrahedron (2004), 60(30), 6385-6394
 CODEN: TETRAB; ISSN: 0040-4020
 PUBLISHER: Elsevier Science B.V.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Five bis(isocyanuric) acid dimers have been prepared and characterized. The introduction of flexible alkyl chains was necessary to aid solubility. On mixing with N,N-bis(4-tert-butylphenyl)melamine in THF followed by slow evaporation, a viscous gel can form which is interpreted as evidence for the assembly of an infinite 2-D hydrogen bonded network.

RX(2) OF 192 E ==> A...



RX(2) RCT E 108-19-0

STAGE(1)

RGT F 7664-93-9 H₂SO₄, G 7697-37-2 HNO₃
 SOL 7732-18-5 Water
 CON SUBSTAGE(1) 0.5 hours, 0 deg C
 SUBSTAGE(2) 2 hours, 0 deg C

STAGE(2)

RGT H 1310-73-2 NaOH
 SOL 7732-18-5 Water
 CON 0 deg C, pH 8.5

STAGE(3)

RGT I 7647-01-0 HCl
 SOL 7732-18-5 Water
 CON pH 2

PRO A 16326-62-8

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 2 OF 12 CASREACT COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 141:38364 CASREACT

TITLE: Preparation of hydrazodicarbonamide as intermediate for azodicarbonamide at low cost

INVENTOR(S): Mori, Hiroshi; Ishikawa, Keiichiro; Hayashi, Hiroyasu; Tabuchi, Akira

PATENT ASSIGNEE(S): Otsuka Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

Patent

Japanese

FAMILY ACC. NUM. COUNT: 1

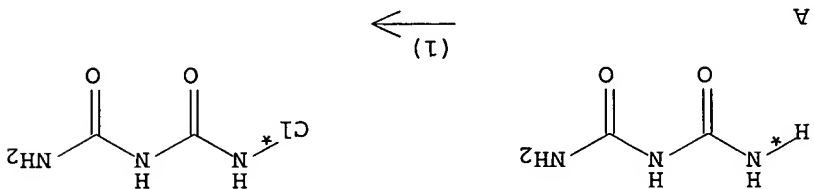
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004161692	A2	20040610	JP 2002-330600	20021114
OTHER SOURCE(S):			JP 2002-330600	20021114

AB H2NCONHNHCONH2, useful as intermediate for plastic blowing agent and

food foaming agent, are prepared by H2NCONHC(OM):NX (X = halo; M = alkali metal) with ammonia. Thus, chlorination of HN(CONH2)2 with aqueous NaClO in aqueous NaOH gave 98.9% H2NCONHC(ONa):NCl, which was treated with 25% ammonia at 25° for 3 h to afford 91.9% H2NCONHNHCONH2 with 99.0% purity.

RX (1) OF 7 A ==> B...



Na

B
YIELD 99%

RX (1) RCT A 108-19-0

STAGE(1)
RGT C 1310-73-2 NaOH
SOL 7732-18-5 Water
CON room temperature -> 2 deg C

STAGE(2)
RGT D 7681-52-9 NaOCl
SOL 7732-18-5 Water
CON 30 minutes, 0 - 2 deg C

PRO B 701231-98-3

NTE alternative prepn. shown

L29 ANSWER 3 OF 12 CASREACT COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 140:43773 CASREACT

TITLE: Method for preparing hydrazodicarbonamide from

biuret

INVENTOR(S): Lee, Chun-Hyuk; Han, Sang-Jin

PATENT ASSIGNEE(S): J & J Chemical Co., Ltd., S. Korea

SOURCE: PCT Int. Appl., 24 pp.

Searcher : Shears 571-272-2528

CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003106400	A1	20031224	WO 2002-KR1862	20021007
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CN 1558896	A	20041229	CN 2001-823726	20011024
CN 1727331	A	20060201	CN 2005-10087780	20011024
KR 2003096792	A	20031231	KR 2002-33814	20020617
AU 2002368029	A1	20031231	AU 2002-368029	20021007
BR 2002015778	A	20050301	BR 2002-15778	20021007
EP 1513798	A1	20050316	EP 2002-807526	20021007
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
JP 2005529179	T2	20050929	JP 2004-513234	20021007
US 2005107566	A1	20050519	US 2004-15853	20041217
PRIORITY APPLN. INFO.:			KR 2002-33814	20020617
			CN 2001-823726	20011024
			WO 2002-KR1862	20021007

OTHER SOURCE(S): MARPAT 140:43773

AB A method for preparing hydrazodicarbonamide using biuret as a starting material is described comprising: obtaining a metal monohalobiuret salt (e.g., sodium chlorobiuret salt) by reacting a biuret with a metal hypohalogen compound (e.g., sodium hypochlorite), or by reacting biuret with a halogenating agent and a base; and reacting the obtained metal monohalobiuret salt with ammonia, where the hydrazodicarbonamide is produced in the presence of a catalyst including bromine or iodine atom and generating bromine (e.g., sodium bromide) or iodine ion during the reaction.

RX(2) OF 3 E ==> A...



D1-C1

● Na

A
YIELD 99%

RX (2)

RCT E 108-19-0

RGT F 7681-52-9 NaOCl

PRO A 518979-80-1

CAT 7647-15-6 Nabr

SOL 7732-18-5 water

CON SUBSTAGE(1) < 5 deg C

SUBSTAGE(2) < 5 deg C

SUBSTAGE(3) < 5 deg C

NTE other preps. gave similar yields

REFERENCE COUNT: 1

THIS RECORD. ALL CITATIONS AVAILABLE IN THE
THERE ARE 1 CITED REFERENCES AVAILABLE FOR

RE FORMAT

L29 ANSWER 4 OF 12 CASREACT COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 138:355457 CASREACT

TITLE: Method and apparatus for preparing

hydrazodicarbonamide via the pyrolysis of urea

into biuret with conversion into haloburet metal

salts and their subsequent reaction with ammonia

INVENTOR(S) :

Lee, Chun-hyuk; Han, Sang-jin
J & J Chemical Co., Ltd., S. Korea

SOURCE: PCT Int. Appl., 33 pp.

CODEN: PIXXD2

Patent

DOCUMENT TYPE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.		KIND	DATE	APPLICATION NO.	DATE
WO 2003035601		A1	20030501	WO 2001-KR1796	20011024
W:		AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW	RW:	CM, GA, GN, GW, MT, MR, NE, NL, NT, PT, SE, TR, BF, BJ, CF, CG, CI, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, CM, GA, GN, GW, MT, MR, NE, NL, NT, PT, SE, TR, BF, BJ, CF, CG, CI,	

10/829418

EP 1446378 A1 20040818 EP 2001-981121 20011024
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
BR 2001017163 A 20041026 BR 2001-17163 20011024
JP 2005506378 T2 20050303 JP 2003-538117 20011024
US 2004199012 A1 20041007 US 2004-829418 20040421

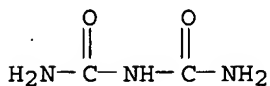
PRIORITY APPLN. INFO.:

WO 2001-KR1796 20011024

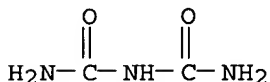
OTHER SOURCE(S): MARPAT 138:355457

AB An economically and environmentally desirable method for the manufacture of hydrazodicarbonamide comprises using: a pyrolysis furnace to obtain biuret and ammonia by pyrolyzing urea; a recrystn. reactor to purify the biuret obtained from the pyrolysis furnace; a first reactor to obtain a metal monohalobiuret salt by reacting the biuret with a metal hypohalogen compound or with halogen and a base; a second reactor to synthesize the hydrazodicarbonamide by reacting the monohalobiuret metal salt with ammonia; and an ammonia evaporator to sep. the excess ammonia from hydrazodicarbonamide and to supply the separated ammonia to an ammonia concentrator for recycle.

RX(3) OF 6 ...B ==> D...



B



D1-C1

● Na

D

YIELD 98%

RX(3) RCT B 108-19-0
 RGT J 7681-52-9 NaOCl
 PRO D 518979-80-1
 SOL 7732-18-5 Water
 CON SUBSTAGE(1) room temperature -> 5 deg C
 SUBSTAGE(2) <5 deg C
 NTE alternative preps. gave similar yields

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L29 ANSWER 5 OF 12 CASREACT COPYRIGHT 2006 ACS on STN

Searcher : Shears 571-272-2528

ACCESSION NUMBER:
136:209613 CASREACT

TITLE:
Synthesis and structural features of some first row transition series metal bis(biuret) polymeric chelates

AUTHOR(S):
Roy, Sushmita M.; Juneja, H. D.; Munshi, K. N.

CORPORATE SOURCE:
Department of Chemistry, Nagpur University,

SOURCE:
Nagpur, 440010, India
Synthesis and Reactivity in Inorganic and Metal-Organic Chemistry (2001), 31(9), 1611-1621

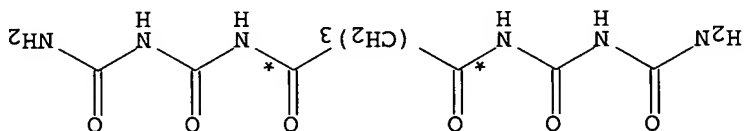
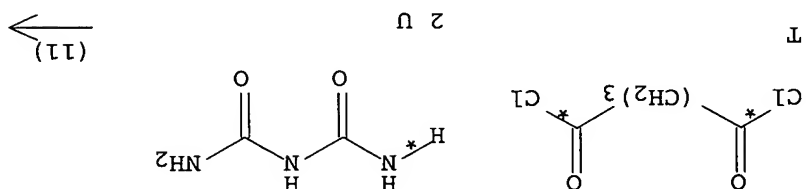
PUBLISHER:
CODEN: SRIMCN; ISSN: 0094-5714
Marcel Dekker, Inc.

DOCUMENT TYPE:
Journal

LANGUAGE:
English

AB The present paper describes the synthesis and structural features of the polymeric chelates of glutaryl bis(biuret) and suberylbis(biuret) with metals of the 1st transition series viz., Mn(II), Co(II), Ni(II), Cu(II) and Zn(II). The resulting polymeric complexes were characterized from elemental analyses, electronic spectral and magnetic susceptibility studies. The nature of bonding is further discussed from IR spectral data. A detailed thermal study of the polymeric chelates was carried out to ascertain their thermal stability.

RX(11) OF 22 T + 2 U ==> A...



A
YIELD 85%

RX(11) RCT T 2873-74-7, U 108-19-0

PRO A 400836-54-6

SOL 71-43-2 Benzene

NTE HCl gas evolution

REFERENCE COUNT: 17

THERE ARE 17 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L29 ANSWER 6 OF 12 CASREACT COPYRIGHT 2006 ACS on STM

ACCESSION NUMBER: 135:351998 CASREACT

TITLE: Synthetic and thermal studies of polymeric

Searcher : Shears 571-272-2528

chelates of some bis-biurets with first transition series metals

AUTHOR(S): Roy, Sushmita M.; Juneja, H. D.; Munshi, K. N.

CORPORATE SOURCE: Department of Chemistry, Nagpur University, Nagpur, 440010, India

SOURCE: Journal of Thermal Analysis and Calorimetry (2001), 65(1), 197-203

CODEN: JTACF7; ISSN: 1418-2874

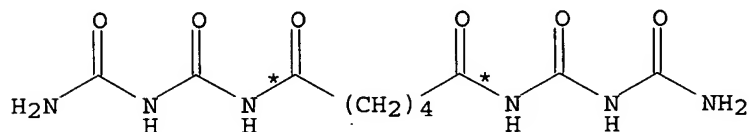
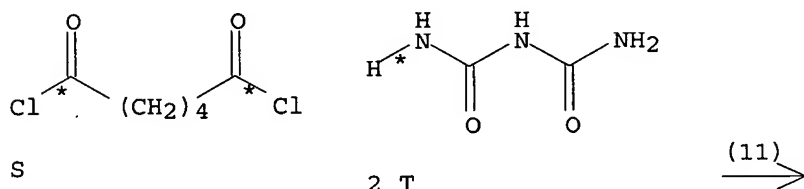
PUBLISHER: Kluwer Academic Publishers

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Some new coordination polymers were synthesized by combining adipoyl bis-biuret and azelaoyl bis-biuret with metals of 1st transition series viz Mn(II), Co(II), Ni(II), Cu(II) and Zn(II). They were characterized by elemental anal., IR and reflectance spectral and magnetic studies. A detailed thermal study was carried out and thermal stability compared. The results obtained are discussed.

RX(11) OF 22 S + 2 T ==> A...



A

RX(11) RCT S 111-50-2, T 108-19-0
 PRO A 371776-09-9
 SOL 71-43-2 Benzene

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 7 OF 12 CASREACT COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 123:55497 CASREACT

TITLE: Phenethylamine compounds with phosphodiesterase IV inhibiting activity

INVENTOR(S): Christensen, Siegfried Benjamin; Forster, Cornelia Jutta

PATENT ASSIGNEE(S): Smithkline Beecham Corp., USA

SOURCE: PCT Int. Appl., 30 pp.

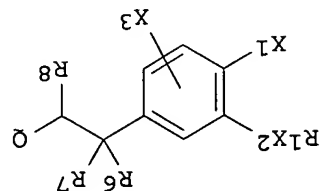
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

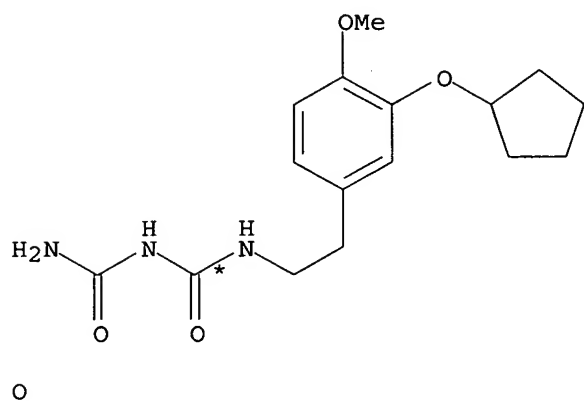
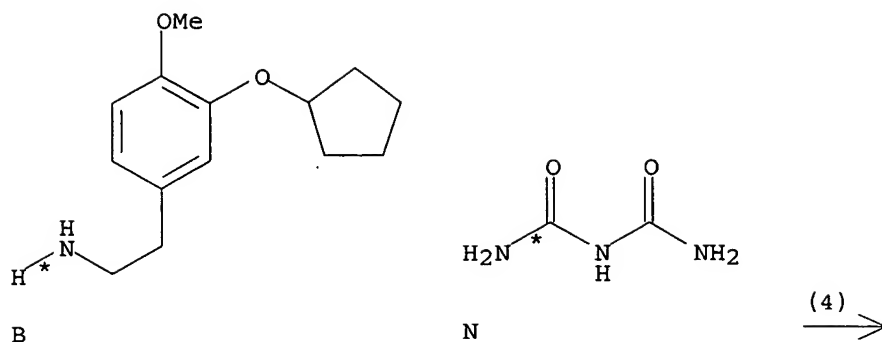
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9505386	A1	19950223	WO 1994-US9308	19940819

W: JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 714397	A1	19960605	EP 1994-925286	19940819
R: BE, CH, DE, FR, GB, IT, LI, NL				
JP 09502170	T2	19970304	JP 1994-507173	19940819
US 5710180	A	19980120	US 1996-596197	19960216
PRIORITY APPLN. INFO.:				
US 1993-109188			US 1993-109188	19930819
WO 1994-US9308			WO 1994-US9308	19940819
OTHER SOURCE(S):				
MARPAT 123:55497				
GI				



AB Substituted phenethylamines I [Q = certain org/inorg.-acylated amino groups; R1 = (un)substituted alkyl, aryl, cycloalkyl, heterocyclyl, etc.; R6 = H, halo, (un)substituted alkyl, cyano, OH, alkoxy, amino, acyl, etc.; R7 = H, F, cyano, (di/tri)(fluoro)methyl; or R6R7 = O, R8 = H, F, cyano, (fluoro)alkyl, (un)substituted CONH2 or CO2H; X1 = YR2, halo, NO2, (un)substituted NH2; X2 = O, (un)substituted NH; X3 = H, X1; Y = O, S, SO, SO2] are inhibitors of phosphodiesterase IV and tumor necrosis factor (no data), and their use as anti-allergic and anti-inflammatory agents is claimed. For example, etherification of 3-hydroxy-4-methoxybenzaldehyde with bromocyclopentane and K2CO3 gave 3-cyclopentyl-4-methoxybenzaldehyde. This aldehyde underwent condensation with MeNO2 to give 3,4-(RO)(MeO)C6H3CH:CHNO2 [R = cyclopentyl], which was reduced by LiAlH4 in THF to give 3,4-(RO)(MeO)C6H3CH2CH2NH2 (II). A variety of agents reacted with II to give title compds. Thus, reaction of II with Me3SiNCO in THF, followed by treatment with NH4Cl and workup, gave 3,4-(RO)(MeO)C6H3CH2CH2NHCONH2.

RX(4) OF 165 . . . B + N ==> O



RX(4) RCT B 141332-75-4, N 108-19-0
 PRO O 164390-38-9
 SOL 68-12-2 DMF

L29 ANSWER 8 OF 12 CASREACT COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 118:80992 CASREACT

TITLE: Interaction of biuret and thiobiuret with hexamethyldisilazane

AUTHOR(S): Gordetsov, A. S.; Zimina, S. V.; Martynova, L. N.; Moseeva, E. M.; Skobeleva, S. E.; Postnikova, T. K.; Tsvetkova, V. L.; Zakharova, R. P.

CORPORATE SOURCE: Nizhegorod. Med. Inst., Nizhniy Novgorod, Russia

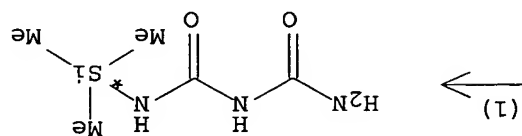
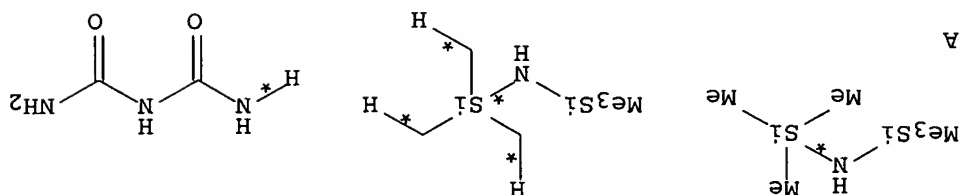
SOURCE: Metalloorganicheskaya Khimiya (1992), 5(4), 811-17
 CODEN: MEKHEX; ISSN: 0235-0114

DOCUMENT TYPE: Journal

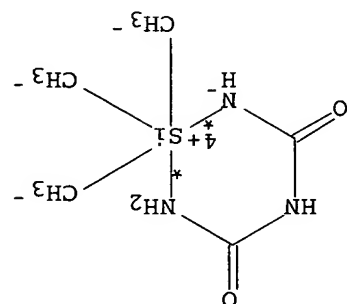
LANGUAGE: Russian

AB The reactions of biuret or thiobiuret with hexamethyldisilazane gave N,N'-bis(trimethylsilyl)urea, N-trimethylsilylbiuret, or N,N'-bis(trimethylsilyl)biuret or -thiobiuret depending on the reaction conditions.

RX(1) OF 4 2 A + 2 B ==> C + D



C
YIELD 99%



D
YIELD 99%

RX (1)
RCT A 999-97-3, B 108-19-0
PRO C 124646-13-5, D 145813-56-5
CAT 35089-90-8 Sulfuric acid, ammonium salt (2:1)
SOL 109-99-9 THF
NTE Excess biuret

L29 ANSWER 9 OF 12 CASREACT COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 114:5791 CASREACT

TITLE: Acylation of biurets with carboxylic acids in

turning sulfuric acid

AUTHOR(S): Kravchenya, N. A.

CORPORATE SOURCE: Grodn. Gos. Med. Inst., Grodno, USSR

SOURCE: Vestsi Akademii Nauk BSSR, Seriya Khimichnykh

NAVUK (1990), (4), 118-20

CODEN: VBSKAK; ISSN: 0002-3590

DOCUMENT TYPE: Journal

LANGUAGE: Russian

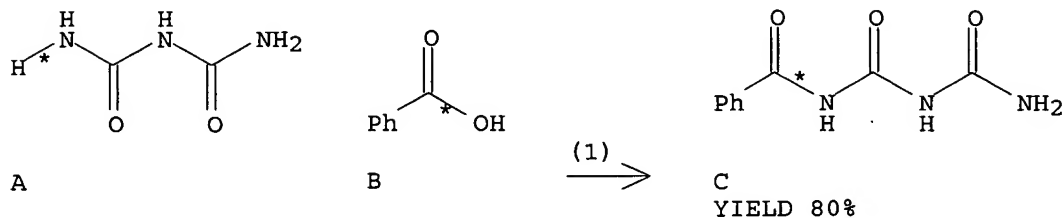
AB Acylation of H₂NCH₂CH₂NH₂ (X = O, S) with RCO₂H (R = alkyl, Ph) in 24%

Searcher : Shears 571-272-2528

10/829418

oleum at 40-50° gave 63-80% R1NHCXNHCXNHR2 (R1 = Ac, COEt, COPr, COBu, COC5H11, CPh, R2 = H, X = O; R1 = R2 = COBu, COC5H11, COC6H13, X = S).

RX(1) OF 9 A + B ==> C



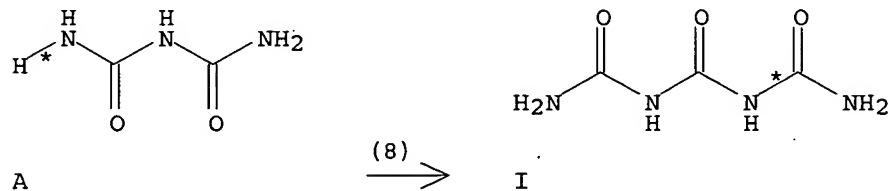
RX(1) RCT A 108-19-0, B 65-85-0
PRO C 6291-91-4

L29 ANSWER 10 OF 12 CASREACT COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 113:177069 CASREACT
TITLE: Manufacture of highly sinterable doped zinc oxide powder
INVENTOR(S): Reetz, Teja; Haase, Ingrid; Voigtsberger, Barbara
PATENT ASSIGNEE(S): Akademie der Wissenschaften der DDR, Ger. Dem. Rep.
SOURCE: Ger. (East), 3 pp.
CODEN: GEXXA8
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DD 276853	A1	19900314	DD 1988-321738	19881114
PRIORITY APPLN. INFO.:			DD 1988-321738	19881114

AB The process comprises dissolving the ZnO and dopants, e.g., metal oxides or metal salts, in at least an equal amount of molten biuret of 170-250°, and decomposing the mixture at 300-800° to obtain the title powder. The doped ZnO powder is especially suitable for use in the manufacture of ZnO-based ceramics for sensors and varistors.

RX(8) OF 14 ...A ==> I



RX(8) RCT A 108-19-0

Searcher : Shears 571-272-2528

PRO I 556-99-0

L29 ANSWER 11 OF 12 CASREACT COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 100:68207 CASREACT

TITLE: o-Hydroxyphenylureas. Intermediates in the urea

fusion synthesis of 2-benzoxazolinones

AUTHOR(S): Nachman, Ronald J.

CORPORATE SOURCE: Nat. Prod. Chem. Unit, West. Regional Res. Cent.,

Berkeley, CA, 94710, USA

SOURCE: Journal of Heterocyclic Chemistry (1983), 20(5),

1423-5
CODEN: JHTCAD; ISSN: 0022-152X

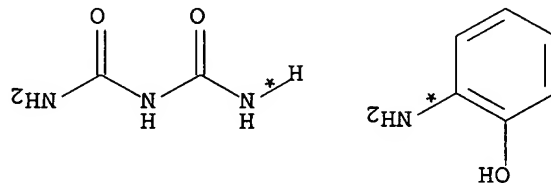
DOCUMENT TYPE: Journal

LANGUAGE: English

AB 4,2-R(HO)C6H3NHCONH2 (R = H, NO2, OMe) have been identified as

intermediates in the urea fusion synthesis of 2-benzoxazolinones. The
pyrolysis of these intermediates represents a new alternate synthesis
of the benzoxazolinone ring system.

RX (8) OF 11 G + L ==> K



(8)

K
YIELD 8%

RX (8) RCT G 95-55-6, L 108-19-0

PRO K 63118-40-1

L29 ANSWER 12 OF 12 CASREACT COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 65:29109 CASREACT

TITLE: Nucleic acid components and their analogs. LXXXIV.

Synthesis of some derivatives of N1-formyl- and
N1,N5-diformylbiuret

Holy, A.

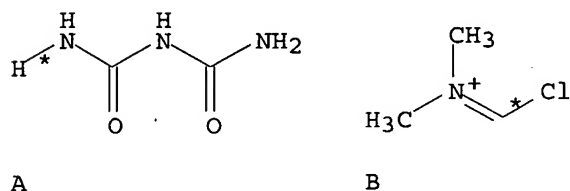
CORPORATE SOURCE: Ceskoslov. Akad. Ved, Prague

Searcher : Shears 571-272-2528

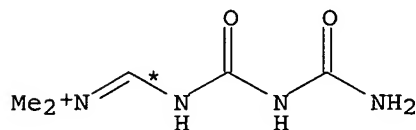
SOURCE: Collection of Czechoslovak Chemical Communications
(1966), 31(7), 2973-7
CODEN: CCCCAC; ISSN: 0010-0765
DOCUMENT TYPE: Journal
LANGUAGE: English

AB cf. CA 65, 788c. A stirred suspension of 20.6 g. $\text{NH}(\text{CONH}_2)_2$ (I) in 50 ml. CHCl_3 was treated with 110 ml. 2M dimethylchloromethyleneammonium chloride (II) in CHCl_3 (an exothermic reaction) and kept overnight at room temperature to give 38 g. $\text{H}_2\text{N}(\text{CONH})_2\text{CH:NMe}_2\text{Cl}$ (III). A refluxing solution of 25 g. I in 600 ml. MeOH was treated dropwise with 32 g. $\text{Me}_2\text{NCH}(\text{OMe})_2$ (IV) and the mixture refluxed an addnl. 2 hrs. and concentrated to give 28 g. $\text{Me}_2\text{NCH:NCONHCONH}_2$ (V), m. $173-4^\circ$ (MeOH), which was prepared also in 75% yield by shaking 1.95 g. III, 10 ml. EtOH, and 1.5 g. Et₃N 6 hrs. A mixture of I, chloromethylenepiperidinium chloride, and CHCl_3 was refluxed 30 min., kept overnight at 20° and the resulting salt collected and stirred with Et₃N in EtOH 16 hrs. at 20° to give 67% N1-piperidinomethylenebiuret, m. $177-8^\circ$ (MeOH). Stirring 38 g. III in 110 ml. H₂O 3 hrs. at room temperature and cooling to 0° gave 15.5 g. $\text{H}_2\text{N}(\text{CONH})_2\text{CHO}$, m. $188-90^\circ$ (decomposition) (H₂O), prepared also in 92% yield by keeping 1.58 g. V in 5 ml. 0.002M HCl 2 hrs. at room temperature. A mixture of 4 g. IV, 1.75 g. V, and 20 ml. CHCl_3 was concentrated by distillation through a Widmer column (bath temperature 105°) and the concentrate refluxed 1 hr. and poured at 20° into 150 ml. Et₂O to give 2.1 g. $(\text{Me}_2\text{NCH:NCO})_2\text{NH}$, m. $143-4^\circ$ (decomposition) (dioxane). Stirring 3.15 g. V in 50 ml. CHCl_3 3 hrs., collecting the precipitate and dissolving it in 10 ml. H₂O, and keeping the solution 3 hrs. gave 1.5 g. $\text{NH}(\text{CONHCHO})_2$, m. $183-4^\circ$ (decomposition) (MeCN).

RX(1) OF 2 A + B ==> C



(1) →



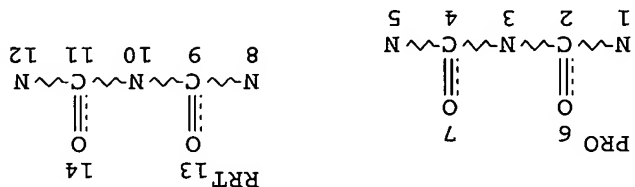
C
YIELD 98%

RX(1) RCT A 108-19-0, B 44205-36-9
 PRO C 504407-70-9
 SOL 67-66-3 CHCl_3
 NTE Classification: Substitution; N-Alkylation; C-Amination; #
 Conditions: CHCl_3 ; 20° ; 2h; overnight; # Comments:
 reactant and product as chloride salts

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L27 STR



NODE ATTRIBUTES:

CONNECT IS E1 RC AT 1

CONNECT IS X3 RC AT 3

CONNECT IS E1 RC AT 8

CONNECT IS X2 RC AT 10

CONNECT IS E1 RC AT 12

DEFAULT MLEVEL IS ATOM

DEFAULT ELEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE

L30 1 SEA L27

L30 ANSWER 1 OF 1 CHEMINFORMRX COPYRIGHT 2006 FIZ CHEMIE ON STN

AN 199845233 CHEMINFORMRX

TI The Design and Synthesis of N4-Anthraniloyl-2'-dc, the Improved

Syntheses of N4-Carbamoyl- and N4-Ureidocarbamoyl-2'-dc, Incorporation

into Oligonucleotides and Triplex Formation Testing.

AU GUZZO-PERNEL, N.; TREGGAR, G. W.; HARALAMBIDIS, J.; LAWLOR, J. M.

CS Howard Florey Inst. Exp. Physiol. Med., Univ. Melbourne, Parkville

3052, Australia

SO Nucleosides Nucleotides, 17(7), 1191-1207 (1998)

CODEN: NUNUD5 ISSN: 0732-8311

LA English

AB

The preparation of the title compounds (III), (VI), and (VIII) and

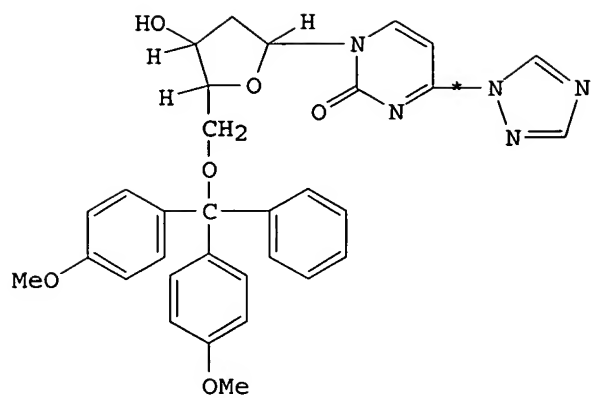
their incorporation into oligonucleotides is reported. Thermal

denaturation studies suggest that these nucleosides do not form base

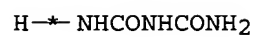
triplets with any of the four base pairs of DNA.

RX(2) OF 3 E + F ==> G

10/829418

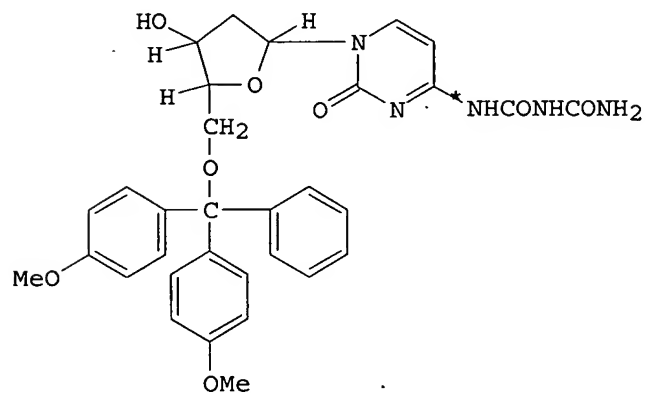


IV



V

(2) \rightarrow



VI

YIELD 63.0%

```

RX(2)      RCT  IV, 633486, CHIRAL
            V, 286772 (108-19-0)
            SOL  76 (68-12-2), DMF
            PRO  VI, 633487, CHIRAL
            YDS  63.0 %
            T    60.0 Cel
            TIM  72 hr
            KW   alkylation; N-alkylation
            NTE  reaction:IV* (V) -> VI*

```

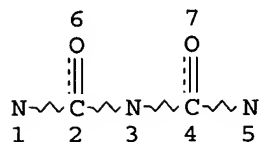
=> fil hom

FILE 'HOME' ENTERED AT 15:07:01 ON 10 JUL 2006

Searcher : Shears 571-272-2528

10/829418

=> d que stat 15; d que stat 16; d que stat 129; d que stat 130; d his ful
L1 STR



NODE ATTRIBUTES:

CONNECT IS E1 RC AT 1
CONNECT IS X3 RC AT 3
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

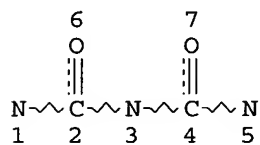
GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE

L2 707 SEA FILE=REGISTRY SSS FUL L1
L5 275 SEA FILE=REGISTRY ABB=ON PLU=ON L2 NOT RSD/FA

L3 STR



NODE ATTRIBUTES:

CONNECT IS E1 RC AT 1
CONNECT IS X2 RC AT 3
CONNECT IS E1 RC AT 5
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

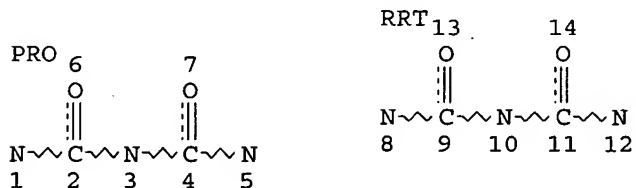
GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE

L4 120 SEA FILE=REGISTRY SSS FUL L3
L6 72 SEA FILE=REGISTRY ABB=ON PLU=ON L4 NOT RSD/FA

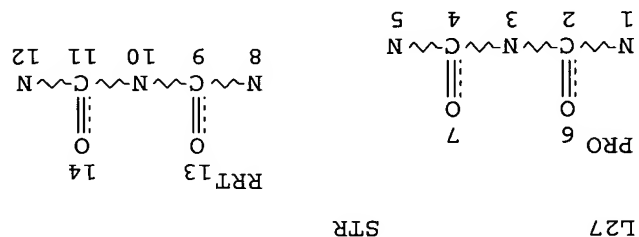
L27 STR



NODE ATTRIBUTES:
 CONNECT IS E1 RC AT 1
 CONNECT IS X3 RC AT 3
 CONNECT IS E1 RC AT 8
 CONNECT IS X2 RC AT 10
 CONNECT IS E1 RC AT 12
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED
 GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 14

L29 12 SEA FILE=CASREACT SSS FUL L27 (47 REACTIONS)
 STEREO ATTRIBUTES: NONE

100.0% DONE 149 VERIFIED 47 HIT RXNS 12 DOCS
 SEARCH TIME: 00.00.01



NODE ATTRIBUTES:
 CONNECT IS E1 RC AT 1
 CONNECT IS X3 RC AT 3
 CONNECT IS E1 RC AT 8
 CONNECT IS X2 RC AT 10
 CONNECT IS E1 RC AT 12
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED
 GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 14
 STEREO ATTRIBUTES: NONE
 L30 1 SEA L27

(FILE 'CAOLD', ENTERED AT 14:51:07 ON 10 JUL 2006)
 DEL HIS Y
 FILE 'REGISTRY', ENTERED AT 14:51:35 ON 10 JUL 2006
 ACT VALEN829/A
 STR
 L1
 L2 707 SEA SSS FUL L1

10/829418

ACT VALEN829B/A

L3 STR
L4 120 SEA SSS FUL L3

FILE 'REGISTRY' ENTERED AT 14:53:28 ON 10 JUL 2006

L*** DEL 3 S E60-62
D SCAN
DEL SEL Y

L5 275 SEA ABB=ON PLU=ON L2 NOT RSD/FA
L6 72 SEA ABB=ON PLU=ON L4 NOT RSD/FA

FILE 'REGISTRY' ENTERED AT 14:54:26 ON 10 JUL 2006

D QUE STAT L5
D QUE STAT L6

FILE 'CAPLUS' ENTERED AT 14:54:26 ON 10 JUL 2006

L7 234 SEA ABB=ON PLU=ON L5/P
L8 160 SEA ABB=ON PLU=ON L6 (L) (RACT OR RCT)/RL
L9 27 SEA ABB=ON PLU=ON L7 AND L8
SEL HIT L9 1-27 RN
DEL SEL Y

FILE 'REGISTRY' ENTERED AT 14:55:57 ON 10 JUL 2006

D QUE STAT L5
D QUE STAT L6

FILE 'CAPLUS' ENTERED AT 14:55:57 ON 10 JUL 2006

SEL HIT L9 1-27 RN
D 1-27 IBIB ABS HITSTR

FILE 'CAOLD' ENTERED AT 14:56:19 ON 10 JUL 2006

L10 90 SEA ABB=ON PLU=ON L5
L11 46 SEA ABB=ON PLU=ON L6
L12 46 SEA ABB=ON PLU=ON L10 AND L11
L13 46 SEA ABB=ON PLU=ON L10 (L) L11
D 1-46

FILE 'USPATFULL' ENTERED AT 14:57:19 ON 10 JUL 2006

L14 46 SEA ABB=ON PLU=ON L5/P
L*** DEL 0 S L6 (L) (RACT OR RCT)/RL
L15 230 SEA ABB=ON PLU=ON L6
L16 40 SEA ABB=ON PLU=ON L14 AND L15
L17 37 SEA ABB=ON PLU=ON L14 (L) L15
D L17 1-37 IBIB ABS

FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 14:58:31 ON 10 JUL 2006

L18 597 SEA ABB=ON PLU=ON L5
L19 559 SEA ABB=ON PLU=ON L6
L20 559 SEA ABB=ON PLU=ON L18 AND L19

FILE 'REGISTRY' ENTERED AT 14:59:31 ON 10 JUL 2006

E AMMONIA/CN

L21 8 SEA ABB=ON PLU=ON (AMMONIA/CN OR "AMMONIA (15NH3)"/CN OR
"AMMONIA (ND2T)"/CN OR "AMMONIA (ND3)"/CN OR "AMMONIA
(NDT2)"/CN OR "AMMONIA (NH2D)"/CN OR "AMMONIA (NH31+)"/CN
OR "AMMONIA (T315N)"/CN)

FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 15:00:48 ON 10 JUL 2006

L22 62 SEA ABB=ON PLU=ON L20 AND (L21 OR AMMONI## OR NH#)

Searcher : Shears 571-272-2528

L23 1 SEA ABB=ON PLU=ON L22 AND PYROLY?

D KWIC

D TI AU

10 SEA ABB=ON PLU=ON L22 AND (REACT? OR RXN)

D KWIC

10 SEA ABB=ON PLU=ON L23 OR L24

9 DUP REM L25 (1 DUPLICATE REMOVED)

D 1-9 IBIB ABS

FILE 'CASREACT' ENTERED AT 15:02:33 ON 10 JUL 2006

5 S L1

DIS

STR L1

1 SEA SSS SAM L27 (12 REACTIONS)

12 SEA SSS FUL L27 (47 REACTIONS)

D QUE STAT

D L29 1-12 IBIB ABS FHIT

FILE 'DJSMDS', CHEMINFORMRX', ENTERED AT 15:05:54 ON 10 JUL 2006

1 SEA ABB=ON PLU=ON L27

D QUE STAT

D BIB AB FHIT

FILE 'HOME' ENTERED AT 15:07:01 ON 10 JUL 2006

D QUE STAT L5

D QUE STAT L6

D QUE STAT L29

D QUE STAT L30

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 9 JUL 2006 HIGHEST RN 891170-23-3

DICTIONARY FILE UPDATES: 9 JUL 2006 HIGHEST RN 891170-23-3

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TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

FILE CAPLUS

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10/829418

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FILE COVERS 1907 - 10 Jul 2006 VOL 145 ISS 3
FILE LAST UPDATED: 9 Jul 2006 (20060709/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply
They are available for your review at:

<http://www.cas.org/infopolicy.html>

FILE CAOLD
FILE COVERS 1907-1966
FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file supports REGISTRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

FILE USPATFULL
FILE COVERS 1971 TO PATENT PUBLICATION DATE: 6 Jul 2006 (20060706/PD)
FILE LAST UPDATED: 6 Jul 2006 (20060706/ED)
HIGHEST GRANTED PATENT NUMBER: US7073200
HIGHEST APPLICATION PUBLICATION NUMBER: US2006150291
CA INDEXING IS CURRENT THROUGH 6 Jul 2006 (20060706/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 6 Jul 2006 (20060706/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2006
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2006

FILE MEDLINE
FILE LAST UPDATED: 8 JUL 2006 (20060708/UP). FILE COVERS 1950 TO DAT

On December 11, 2005, the 2006 MeSH terms were loaded.

The MEDLINE reload for 2006 is now (26 Feb.) available. For details on the 2006 reload, enter HELP RLOAD at an arrow prompt (=>).
See also:

<http://www.nlm.nih.gov/mesh/>
http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html
http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_med_data_changes.ht
http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_2006_MeSH.html

OLDMEDLINE is covered back to 1950.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2006 vocabulary.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE BIOSIS
FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNS) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 5 JULY 2006 (20060705/ED)

FILE EMBASE
FILE COVERS 1974 TO 10 JUL 2006 (20060710/ED)

EMBASE has been reloaded. Enter HELP RLOAD for details.

EMBASE is now updated daily. SDI frequency remains weekly (default)
and biweekly.

This file contains CAS Registry Numbers for easy and accurate
substance identification.

FILE CASREACT
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FILE CONTENT:1840 - 9 JUL 2006 VOL 145 ISS 2

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* *

Some CASREACT records are derived from the ZIC/VINITI database (1974-1
provided by Infochem, INPI data prior to 1986, and Biotransformations
database compiled under the direction of Professor Dr. Klaus Kleslich.
This file contains CAS Registry Numbers for easy and accurate substanc
identification.

FILE DJSMDS
FILE LAST UPDATED: 08 MAR 2006 <20060308/UP>

>>> DERWENT JOURNAL OF SYNTHETIC METHODS - DERWENT SUBSCRIBER FILE >>>
>>> FILE COVERS 1975 TO 2004 DATA >>>
>>> GRAPHIC IMAGES OF THE PRINTED DERWENT JOURNAL OF SYNTHETIC
METHODS ARE AVAILABLE FROM 1975 TO 2004 >>>
>>> PLEASE NOTE: IN DJSM HYDROGEN BONDS CANNOT BE DEFINED AS
REACTION SITES >>>

FILE CHEMINFORMRX
FILE LAST UPDATED: 12 JUN 2006 <20060612/UP>

>>> CAS Registry Numbers are available for
substances prior to 1995 >>>

Searcher : Shears 571-272-2528